



ARIZONA DEPARTMENT OF EDUCATION
Tom Horne, Superintendent of Public Instruction
LOCAL DIRECTORS MEETING
October 1, 2008
Loews Ventana Canyon

Welcome and Introductions

Milton Ericksen and Barbara Border

Arizona Tech Council

Milton Ericksen and Justin Williams

ACTE Report

Pam Ferguson

ACOVA Report

Polly Abraham

AP Pilot Outcomes

Helen Bootsma and James Madden

Math Analysis in CTE Programs

Helen Bootsma

FBLA Presentation

Ryan Hamilton

FCCLA Presentation

Sherri Cone

2010 CTE Program List

Helen Bootsma

Professional Development

Paulett Ellis

Assessment Update

Barbara Border and Maggie Mangini

- Pilots for Fall
- Who Will Take the Assessment
- Validation and Reliability
- Processes

Certification Proposal

Barbara Border

Regional Breakouts (attend three sessions)

- **Program List**
- **Assessments**
- **Certification**
- **Math Analysis**

Helen Bootsma
Barbara Border and Maggie Mangini
Jim Brown and Jan Brite
Charles Losh

Adjourn

WHO TAKES CTE END-OF-PROGRAM ASSESSMENTS?

First Semester

- **Concentrators** who have completed the state-designated sequence of CTE courses and will not be enrolled in the same CTE program second semester
- **Concentrators** who are currently enrolled in the last year of the state-designated sequence of CTE courses and want to practice

Second Semester

- **Concentrators** who have completed the state-designated sequence of courses

Secondary Concentrator – A secondary student who has transcribed two (2) or more Carnegie Units/credits in a state-designated sequence in an approved Career and Technical Education program. The Carnegie Units/credits must be in a single Career Preparation program as outlined in the CTE Handbook.

Perkins Secondary Performance Measure & Citation	Measurement Definition	7/1/08 - 6/30/09
2S1 Technical Skill Attainment 113(b)(2)(A)(ii)	Numerator: Number of <u>CTE concentrators</u> who completed the state-designated sequence of instruction then took and passed the technical skills assessment and left secondary education in the reporting year. Denominator: Number of <u>CTE concentrators</u> who completed the state-designated sequence of instruction and then took the technical skills assessment and left secondary education in the reporting year.	Negotiated Level 65%

The Office of Vocational and Adult Education (OVAE) has approved Arizona's proposal that **60** percent of the **concentrators eligible to take the assessment** in identified program areas will take the assessment.

Arizona Education Law: ARS § 15-391(3)(d)(e) requires that JTED programs are designed to lead the student toward certification accepted by industry as a demonstration of competency in that industry. It also requires students to obtain a passing score on an examination that demonstrates a level of skill or competency for that program of study.

The CTE end-of-program assessment is designed to meet **both** Federal Perkins and the Arizona State requirements.

Recommendation to Stakeholders Committee that CTE concentrators participate only **once** during an assessment window.

Report to the CTE Local Directors

October 1, 2008



ARIZONA DEPARTMENT OF EDUCATION
Career & Technical Education

ASU UNIVERSITY
COLLEGE

ARIZONA STATE UNIVERSITY

Workforce Education & Development Office
OWEDCO

Fall 2008 Target

- ▶ **Pilot assessments**
- ▶ **20+ program areas**
- ▶ **Fall Assessment Window –
November 17 – December 19, 2008**

Fall 2008 Assessments

(Monday, November 17 - Friday, December 19, 2008)

- Accounting
- Allied Health Services Option B
Laboratory Assisting
- Allied Health Services Option D
Sports Medicine & Rehabilitation Services
- Allied Health Services Option E
Medical Assisting Services
- Automotive Technologies Option A
Automotive Technology
- Automotive Technologies Option B
Automotive Collision Repair
- Business Management & Administrative Services
- Carpentry Technologies Option A
Carpentry
- Carpentry Technologies Option B
Cabinetmaking
- Construction Technologies
- Culinary Arts
- Financial Services
- Nursing Services

Note. End-of-Program Assessments

- Allied Health Services Option A
Pharmacy Support Services
- Automotive Technologies Option D
Aircraft Mechanics
- Dental Assisting
- Design & Merchandising Option A
Fashion
- Design & Merchandising Option B
Interior
- Diagnostic & Intervention Technology Option B
First Responder
- Drafting & Design Technology Option A
Architectural Drafting
- Drafting & Design Technology Option C
Electronics Drafting
- Drafting & Design Technology Option D
Mechanical Drafting
- Education and Training Education Professions
- Electrical & Power Transmission Tech Option A
Residential Electrician

Note. New Pilot Assessments

Spring 2009 Target

- ▶ **End-of-program assessments**
- ▶ **20+ program areas (after 1st and/or 2nd pilots)**
- ▶ **Five other program areas**
- ▶ **Spring Assessment Window –
April - May, 2009**

Spring 2009 Assessments

(Monday, April 20 - Wednesday, May 20, 2009)

- Accounting
- Allied Health Services Option A-Pharmacy Support Services
- Allied Health Services Option B-Laboratory Assisting
- Allied Health Services Option D-Sports Medicine & Rehabilitation Services
- Allied Health Services Option E-Medical Assisting Services
- Automotive Technologies Option A-Automotive Technology
- Automotive Technologies Option B-Automotive Collision Repair
- Automotive Technologies Option D-Aircraft Mechanics
- Business Management & Administrative Services
- Carpentry Technologies Option A-Carpentry
- Carpentry Technologies Option B-Cabinetmaking
- Construction Technologies
- Culinary Arts
- Dental Assisting
- Design & Merchandising Option A Fashion
- Design & Merchandising Option B Interior
- Diagnostic & Intervention Technology Option B-First Responder
- Drafting & Design Technology Option A-Architectural Drafting
- Drafting & Design Technology Option C-Electronics Drafting
- Drafting & Design Technology Option D-Mechanical Drafting
- Education and Training Education Professions
- Electrical & Power Transmission Tech Option A-Residential Electrician
- Financial Services
- Nursing Services
- Therapeutic Massage
- Education and Training Early Childhood Education
- Engineering Sciences Option A-Aerospace/Mechanical Engineering
- Engineering Sciences Option B-Electrical Engineering
- Engineering Sciences Option C-Environmental/Civil Engineering
- Welding Technology
- Biomedical Technologies Option A
- Biomedical Technologies Option B

Note. New Pilot Assessments

Note. End-of-Program Assessments

Work-in-progress:

Assembling Item Development Committees

- ▶ **Revision of assessments based on spring 2008 pilots:**
 - gap analysis on standards and measurement criteria
 - item analysis – difficulty index
 - item development (adopt/adapt/create)
- ▶ **Develop pilot assessments in additional program areas**

► Item Development Committees

■ Second pilot assessments – Fall 2008

September 17, 2008

- Cabinetmaking
- Carpentry
- Construction Technologies

September 18, 2008

- Accounting
- Financial Services
- Business Management & Administrative Services

September 19, 2008

- Medical Assisting
- Laboratory Assisting
- Sports Medicine & Rehabilitation

■ Second pilot assessments – Fall 2008
(Cont'd)

September 22, 2008

- Culinary Arts

October 3, 2008

- Nursing Services

October 20, 2008

- Automotive Technology

- Automotive Collision Repair *

* meeting date TBD

■ First pilot assessments * – Fall 2008

- Pharmacy Support
- Dental Assisting
- Therapeutic Massage
- Drafting & Design (3 options)
- Education Professions
- Interior Design & Merchandising
- Fashion Design & Merchandising
- Aircraft Mechanics
- First Responder
- Residential Electrician

* contingent upon item development

External Review

▶ Who?

- psychometricians
- assessment experts

▶ What?

- process for establishing
 - validity
 - reliability

Stakeholders Committee

- ▶ **meeting regularly**
 - August 13, 2008
 - October 17, 2008
 - November 21, 2008
- ▶ **addressing**
 - assessment security
 - site administrator training
 - connectivity
- ▶ **engaging teachers for committee work**
- ▶ **ensuring system usability**

Action Ahead

► **Establishing/validating standards and initializing the process for additional pathways**

- Bioscience (October 9, 2008)
- Engineering (October 23, 2008)
- Precision Manufacturing (October 24, 2008)
- Information Technology (IT) *
- Marketing and Media *

* meeting dates TBD

Action Ongoing

- ▶ **5 ½ units of academic credit in CTE – English, mathematics, science, and economics (Class of 2013)**
- ▶ **Crosswalk of higher math (Algebra II+)**
 - multiple program areas
- ▶ **Employability Skills and 21st Century Skills – assessment development**

Occupational Clusters

- 
- Agribusiness and Related
 - Health Related
 - Business, Marketing, and Merchandising
 - Construction Related
 - Power Transmission, IT, and Other Technologies
 - Biosciences
Biomedical
Bioenvironmental
Bioinnovation
 - Hospitality and Culinary
 - Precision Manufacturing and Engineering
 - Fire, Public Safety, and Related Areas
 - Film, Communications, Performing/Fine Arts, and Design
 - Education and Early Childhood Professions
 - Transportation Technology

Contact

► Arizona Department of Education

Barbara Border, Deputy Associate Superintendent and
State Director of Career and Technical Education
Arizona Department of Education
1535 W Jefferson Street
Phoenix AZ 85007
602-542-5358
Barbara.Border@asu.edu

► Arizona State University

Maggie Mangini, Executive Director
Workforce Education and Development Office
Arizona State University
411 N Central Avenue, Suite 300
Phoenix AZ 85004-2191
602-496-1451
Maggie.Mangini@asu.edu

Arizona Career and Technical Education FY 2010 Program List

Rank	CIP	2010 CTE Program List
E	15.0000	Engineering Sciences
E	41.0100	Bioscience
1	51.1600	Nursing Services
2	52.0200	Business Management and Administration Services
3	51.0900	Diagnostic and Intervention Technologies
4	43.0100	Law, Public Safety and Security
5	46.0300	Electrical and Power Transmission Technologies
6	43.0200	Fire Science
7	51.0600	Dental Assisting
8	52.1500	Real Estate
9	47.0600	Transportation Technologies
10	49.0100	Air Transportation
11	52.1900	Design and Merchandising
12	47.0300	Heavy/Industrial Equipment Maintenance Technologies
13	01.0100	Agricultural Business Management - Agriscience
14	15.1300	Drafting and Design Technologies
15	15.1200	Information Technologies
16	47.0200	Heating, Ventilation and Air Conditioning
17	52.0900	Hospitality Management
18	22.0300	Legal Support Services
19	49.0200	Heavy Equipment Operations
20	15.0300	Electronic Technologies
21	51.0700	Health and Medical Administrative Services
22	46.0400	Construction Technologies
23	51.0800	Allied Health Services
24	51.1500	Mental and Social Health Services
25	47.0100	Electrical Systems Installation and Maintenance Technologies
26	52.0300	Accounting and Related Services
27	52.1800	Marketing, Management and Entrepreneurship
28	52.0400	Business Operations Support and Assistant Services
29	52.0800	Financial Services
30	12.0500	Culinary Arts
31	13.1200	Education and Training: Education Professions
32	13.1210	Education and Training: Early Childhood Education
33	48.0508	Welding Technologies
34	48.0500	Precision Manufacturing
35	12.0400	Cosmetology
36	10.0200	Audiovisual Technologies
37	50.0100	Performing Arts and Entertainment Industry
38	51.3500	Therapeutic Massage
39	10.0300	Graphic Communications
Purple= Emerging Program		
Blue= Existing Program with Option Change		
Green= Existing Program with Name change		
Orange= Existing Program Name and Option change		
Yellow= Existing Program with CIP Change		
Gray= Existing Program CIP, Name and Option Change		
Gold= Potential New Programs		

Sources	
1	Openings and wage data are produced by the Arizona Department of Commerce, Research Administration, in cooperation with the U.S. Department of Labor, Bureau of Labor Statistics. Wages are from the 2007 OES survey, released May 2008 and openings are from the 2006-2016 Occupational Projections.
2	O*NET database version 9.0: http://www.onetcenter.org/database.html
3	O*NET score is summation of all O*NET descriptors.
4	Education Levels: ftp://ftp.bls.gov/pub/special.requests/ep/optddata/optd.zip
5	Crosswalk between SOC and CIP: http://www.edcountability.net/quality/crosswalks.cfm
Calculation method	
1	Hourly wages were calculated by dividing annual wages by 2080.
2	All scores were first calculated by occupation using the SOC (Standard Occupational Code).
3	The field of occupations was restricted to those whose educational code was between 6 and 11 . The lowest educational code have the highest numbers (see below).
4	Scores by CIP (Classification of Instructional Programs) were calculated by taking an openings-weighted average of the occupations in the CIP. Within each CIP, there may be several 8-digit O*NET variations of the same 6-digit SOC occupation. In those cases, each SOC was counted only once. If a SOC occurred in more than one CIP, the openings for that SOC were evenly divided among the CIP code numbers.
5	Percentiles were calculated for each of the data items: openings, wages, and O*NET scores. In case of a tie, the same percentile was assigned to all CIP numbers involved in the tie.
6	The following formula determined the score for each CIP: $(4 \times \text{Openings Percentile} + 2 \times \text{Wage Percentile} + 3 \times \text{O*NET Percentile})/9$
BLS Education Codes	
1-4	The higher educational levels were not used for this project.
5	Bachelor Degree -- not used for this project.
6	Associate Degree
7	Post-secondary vocational training
8	Work experience in related occupation
9	Long-term on-the-job training
10	Moderate-term on-the-job training
11	Short-term on-the-job training
	for more details on the Education Codes, see: http://www.bls.gov/emp/optd/optd001.pdf
Questions and Comments	
	Direct questions or comments to Rick Van Sickle, rickv@azcommerce.com , John Graeflin, johng@azcommerce.com , or Cheri Levenson, cheril@azcommerce.com , at Research Administration, AZ Dept of Commerce

		Explanations of Each Column
C o l u m n		Explanation
A	Rank	This is the rank of the CIP (Classification of Instructional Programs) by score (column 4). Tie scores get tie ranks. Sometimes scores appear to be tie, but, if carried out to more decimal places, are not. Such CIPs are not assigned tie ranks.
B	CIP Code	This is the CIP (Classification of Instructional Programs) code of the training program. For more information see: http://nces.ed.gov/pubs2002/cip2000
C	CIP Title	The title of the training program. http://nces.ed.gov/pubs2002/cip2000
D	Score	The score is a weighted average of columns E through G. The weights used are: [(4 times OPEN) + (2 times WAGE) + (3 times O*NET)]/(sum of the weights or 9)]
E -G	Percentiles	These 3 columns convert the data in columns H through J to percentiles. Tie scores produce tie percentiles.
H	Openings	The number of openings expected per year for the occupations within this CIP. If an occupation is contained in more than one CIP, its openings are distributed evenly among those CIPs.
I	Hourly Wage	The average of the wages of the occupations contained in this CIP, weighted by the number of openings in each occupation.
J	O*NET Score	A measure of the skills and knowledge required for the occupations within this CIP, weighted by the number of openings in each occupation.
K	Educational Level	The various educational levels are described on lines 15-22 of the notes section. Higher numbers indicate lower amounts of education.

FY 2010 Program List With Options

CIP	2010 CTE Program List	CIP	2010 CTE Program List	CIP	2010 CTE Program List
01.0100	Agricultural Business Management - Agriscience Food Products and Processing Systems Plant Systems Animal Systems Natural Renewable Resources Systems Power, Structural and Technical Systems Agribusiness Systems Environmental Service Systems	43.0200	Fire Science	51.0800	Allied Health Services Pharmacy Support Services Laboratory Assisting Medical Imaging Support Services Sports Medicine and Rehabilitation Services Medical Assisting Services
10.0200	Audiovisual Technologies Electronic Journalism Interactive Digital Media Audio/Radio Technologies	46.0300	Electrical and Power Transmission Technologies Residential Electrician Industrial Electrician	51.0900	Diagnostic and Intervention Technologies Respiratory Therapy Technician Emergency Medical Services Surgical Technician
10.0300	Graphic Communications Graphic Arts Graphic Design Photo Imaging	46.0400	Construction Technologies Advanced Construction Technologies Carpentry Cabinetmaking	51.1500	Mental and Social Health Services
12.0400	Cosmetology	47.0100	Electrical Systems Installation and Maintenance Technologies	51.1600	Nursing Services
12.0500	Culinary Arts	47.0200	Heating, Ventilation and Air Conditioning	51.3500	Therapeutic Massage
13.1200	Education and Training: Education Professions	47.0300	Heavy/Industrial Equipment Maintenance Technologies	52.0200	Business Management and Administrative Services
13.1210	Education and Training: Early Childhood Education	47.0600	Transportation Technologies Automotive Technologies General Service Technician Automotive Collision Repair Diesel Engine Repair Aircraft Mechanics	52.0300	Accounting and Related Services
15.0000	Engineering Sciences	48.0500	Precision Manufacturing Automation/Robotics Computer Controlled Fabrication Product Layout & Development	52.0400	Business Operations Support and Assistant Services
15.0300	Electronic Technologies	48.0508	Welding Technologies	52.0800	Financial Services
15.1200	Information Technologies Computer Maintenance Network Technologies Software Development Web Page Development	49.0100	Air Transportation	52.0900	Hospitality Management
15.1300	Drafting and Design Technologies Architectural Drafting Electronic Drafting Mechanical Drafting	49.0200	Heavy Equipment Operations	52.1500	Real Estate
22.0300	Legal Support Services	50.0100	Performing Arts and Entertainment Industry Technical Theatre Arts Management	52.1800	Marketing, Management and Entrepreneurship Professional Sales and Marketing Entertainment Marketing Entrepreneurship Advertising and Public Relations
41.0100	Bioscience Bio-medical Bio-environmental Bio-innovations	51.0600	Dental Assisting	52.1900	Design and Merchandising Fashion Design and Merchandising Interior Design and Merchandising
43.0100	Law, Public Safety and Security	51.0700	Health and Medical Administrative Services		

Blue - Existing Program with Option Change

Green - Existing Program with Name Change

Orange - Existing Program Name and Option Change

Yellow - Existing Program with CIP Change

Gray - Existing Program CIP, Name and Option Change

Gold - Potential New Programs

78 Programs/Options

Amended 9/23/2008

FY 2010 CTE Program List Ranked by Formula

$$\text{Score} = (4 \times \text{Openings} + 2 \times \text{Wage} + 3 \times \text{ONET}) / 2.25$$

Rank	CIP Code	CIP Title	Score ¹	Open	Wage	O*NET ²	Openings	Hourly Wage	O*NET Score	Ed Code ³
E	15.0000	Engineering Sciences								
E	41.0100	Bioscience								
1	51.1600	Nursing Services	94.9	97	92	94	2685	24.59	658	6.4
2	52.0200	Business Management and Administration Services	88.1	90	91	83	1027	24.08	631	8
3	51.0900	Diagnostic and Intervention Technologies	85.1	85	79	90	671	21.3	639	7
4	43.0100	Law, Public Safety and Security	84.6	94	66	84	1721	19.62	633	9.6
5	46.0300	Electrical and Power Transmission Technologies	83.1	81	68	97	475	19.84	669	9.1
6	43.0200	Fire Science	80.4	74	63	100	291	18.94	752	9
7	51.0600	Dental Assisting	79.3	85	84	68	684	22.31	592	8.5
8	52.1500	Real Estate	77.1	78	97	63	379	26.8	577	7
9	47.0600	Transportation Technologies	76.0	86	56	76	702	18.23	607	7.7
10	49.0100	Air Transportation	75.5	59	99	82	86	32.48	627	7.6
11	52.1900	Design and Merchandising	74.2	88	85	49	755	22.36	548	9.1
12	47.0300	Heavy/Industrial Equipment Maintenance Technologies	72.2	76	59	76	334	18.38	608	9.4
13	01.0100	Agricultural Business Management - Agriscience	71.9	83	63	64	631	18.9	582	8.3
14	15.1300	Drafting and Design Technologies	70.3	60	81	77	102	21.68	608	7
15	15.1200	Information Technologies	69.9	69	88	60	177	23.11	571	6
16	47.0200	Heating, Ventilation and Air Conditioning	68.9	55	51	99	58	17.06	721	9
17	52.0900	Hospitality Management	67.6	73	58	67	261	18.36	591	8.7
18	22.0300	Legal Support Services	64.3	79	80	34	456	21.47	498	6.8
19	49.0200	Heavy Equipment Operations	63.3	97	30	40	3003	16.08	520	10.4
20	15.0300	Electronic Technologies	63.0	54	92	56	55	24.16	562	6
21	51.0700	Health and Medical Administrative Services	61.9	96	33	36	2284	16.3	507	9
22	46.0400	Construction Technologies	61.7	93	33	39	1484	16.33	516	9.8
23	51.0800	Allied Health Services	60.2	91	18	47	1040	13.98	542	9

FY 2010 CTE Program List Ranked by Formula

$$\text{Score} = (4 \times \text{Openings} + 2 \times \text{Wage} + 3 \times \text{ONET}) / 2.25$$

Rank	CIP Code	CIP Title	Score ¹	Open	Wage	O*NET ²	Openings	Hourly Wage	O*NET Score	Ed Code ³
24	51.1500	Mental and Social Health Services	59.8	75	22	65	294	14.68	584	10
25	47.0100	Electrical Systems Installation and Maintenance Technologies	57.6	81	60	24	495	18.58	473	8.4
26	52.0300	Accounting and Related Services	56.2	95	28	23	1802	15.57	464	10
27	52.1800	Marketing, Management and Entrepreneurship	56.0	99	11	29	9773	12.13	486	10.8
28	52.0400	Business Operations Support and Assistant Services	55.4	99	17	22	10732	13.81	464	10.5
29	52.0800	Financial Services	54.1	94	13	28	1604	12.88	484	11
30	12.0500	Culinary Arts	53.1	100	1	25	11408	9.29	478	10.7
31	13.1200	Education and Training: Education Professions	51.9	72	26	43	221	15.33	529	7.6
32	13.1210	Education and Training: Early Childhood Education	51.9	72	26	43	221	15.33	529	7.6
33	48.0508	Welding Technologies	51.9	83	25	28	661	15.28	482	9.4
34	48.0500	Precision Manufacturing	51.9	83	25	28	661	15.28	482	9.4
35	12.0400	Cosmetology	50.4	82	10	35	532	11.96	501	7
36	10.0200	Audiovisual Technologies	49.4	67	20	46	141	14.29	541	9.5
37	50.0100	Performing Arts and Entertainment Industry	43.6	41	57	38	26	18.29	516	9
38	51.3500	Therapeutic Massage	40.0	56	27	27	67	15.49	482	7
39	10.0300	Graphic Communications	37.3	65	10	18	130	12.1	425	10.2
¹ Score = (4 X Openings Percentile + 2 X Wage Percentile + 3 X ONET Percentile)/9										
² ONET Percentile - occupations below 3.5%ile were not included in calculations.										
³ Ed Codes greater than or equal to 6 were used. Ed codes are the average of the occupations in each CIP. See notes page more details.										
		Purple=Emerging Program								
		Blue=Existing Program with Option Change								
		Green=Existing Program with Name change								
		Orange=Existing Program Name and Option change								
		Yellow=Existing Program with CIP Change								
		Gray=Existing Program CIP, Name and Option Change								
		Gold=Potential New Programs								

Sources	
1	Openings and wage data are produced by the Arizona Department of Commerce, Research Administration, in cooperation with the U.S. Department of Labor, Bureau of Labor Statistics. Wages are from the 2007 OES survey, released May 2008 and openings are from the 2006-2016 Occupational Projections.
2	O*NET database version 9.0: http://www.onetcenter.org/database.html
3	O*NET score is summation of allo*NET descriptors.
4	Education Levels: ftp://ftp.bls.gov/pub/special.requests/ep/optddata/optd.zip
5	Crosswalk between SOC and CIP: http://www.edcountability.net/quality/crosswalks.cfm
Calculation method	
1	Hourly wages were calculated by dividing annual wages by 2080.
2	All scores were first calculated by occupation using the SOC (Standard Occupational Code).
3	The field of occupations was restricted to those whose educational code was between 6 and 11 . The lowest educational code have the highest numbers (see below).
4	Scores by CIP (Classification of Instructional Programs) were calculated by taking an openings-weighted average of the occupations in the CIP. Within each CIP, there may be several 8-digit O*NET variations of the same 6-digit SOC occupation. In those cases, each SOC was counted only once. If a SOC occurred in more than one CIP, the openings for that SOC were evenly divided among the CIP code numbers.
5	Percentiles were calculated for each of the data items: openings, wages, and O*NET scores. In case of a tie, the same percentile was assigned to all CIP numbers involved in the tie.
6	The following formula determined the score for each CIP: $(4 \times \text{Openings Percentile} + 2 \times \text{Wage Percentile} + 3 \times \text{O*NET Percentile})/9$
BLS Education Codes	
1-4	The higher educational levels were not used for this project.
5	Bachelor Degree -- not used for this project.
6	Associate Degree
7	Post-secondary vocational training
8	Work experience in related occupation
9	Long-term on-the-job training
10	Moderate-term on-the-job training
11	Short-term on-the-job training
	for more details on the Education Codes, see: http://www.bls.gov/emp/optd/optd001.pdf
Questions and Comments	
	Direct questions or comments to Rick Van Sickle, rickv@azcommerce.com , John Graeflin, johnng@azcommerce.com , or Cheri Levenson, cheril@azcommerce.com , at Research Administration, AZ Dept of Commerce

		Explanations of Each Column
C o l u m n		Explanation
A	Rank	This is the rank of the CIP (Classification of Instructional Programs) by score (column 4). Tie scores get tie ranks. Sometimes scores appear to be tie, but, if carried out to more decimal places, are not. Such CIPs are not assigned tie ranks.
B	CIP Code	This is the CIP (Classification of Instructional Programs) code of the training program. For more information see: http://nces.ed.gov/pubs2002/cip2000
C	CIP Title	The title of the training program. http://nces.ed.gov/pubs2002/cip2000
D	Score	The score is a weighted average of columns E through G. The weights used are: [(4 times OPEN) + (2 times WAGE) + (3 times O*NET)]/(sum of the weights or 9)]
E -G	Percentiles	These 3 columns convert the data in columns H through J to percentiles. Tie scores produce tie percentiles.
H	Openings	The number of openings expected per year for the occupations within this CIP. If an occupation is contained in more than one CIP, its openings are distributed evenly among those CIPs.
I	Hourly Wage	The average of the wages of the occupations contained in this CIP, weighted by the number of openings in each occupation.
J	O*NET Score	A measure of the skills and knowledge required for the occupations within this CIP, weighted by the number of openings in each occupation.
K	Educational Level	The various educational levels are described on lines 15-22 of the notes section. Higher numbers indicate lower amounts of education.

DRAFT Detailed Occupational Data within All Available CIP Codes for 2010 CTE Program List with Percent Allocation

CIP	CIP TITLE	SOC	OCCUPATIONAL TITLE	OPEN	ONET	WAGE	ED	PCT
01.01	Agricultural Business Management - Agriscience			631	582	18.90	8.3	
01.01		13-1021	Purchasing Agents and Buyers, Farm Products	7	525	24.71	8	100
01.01		15-1041	Computer Support Specialists	122	575	22.64	6	20
01.01		37-2021	Pest Control Workers	140	654	12.75	10	100
01.01		39-2021	Nonfarm Animal Caretakers	55	516	9.58	11	50
01.01		43-1011	First-Line Supervisors/Managers of Office and Administrative	293	573	22.24	8	33
01.01		45-1011	First-Line Supervisors/Managers of Farming, Fishing	3	563	20.27	8	17
01.01		45-2041	Graders and Sorters, Agricultural Products	11	365	8.49	8	100
01.02	Agricultural Mechanization			148	591	17.04	7.9	
01.02		45-2091	Agricultural Equipment Operators	45	567	8.83	10	100
01.02		49-3011	Aircraft Mechanics and Service Technicians	18	518	24.06	7	50
01.02		49-3041	Farm Equipment Mechanics	15	545	14.02	7	100
01.02		49-3042	Mobile Heavy Equipment Mechanics, Except Engines	70	635	21.21	7	50
01.03	Agricultural Production Operations			466	459	8.42	11	
01.03		45-1011	First-Line Supervisors/Managers of Farming, Fishing	3	563	20.27	8	17
01.03		45-2092	Farmworkers and Laborers, Crop, Nursery, and Greenhouse	445	460	8.19	11	100
01.03		45-2093	Farmworkers, Farm and Ranch Animals	18	397	12.05	11	50
01.04	Agricultural and Food Products Processing			138	498	11.69	10.6	
01.04		45-2011	Agricultural Inspectors	9	535	17.16	8	100
01.04		51-3091	Food and Tobacco Roasting, Baking, and Drying Machine Operators	8	471	11.82	11	100
01.04		51-3092	Food Batchmakers	61	525	9.88	11	50
01.04		51-3093	Food Cooking Machine Operators and Tenders	32	547	11.24	11	100
01.04		51-9023	Mixing and Blending Machine Setters, Operators, and Tenders	28	382	14.32	10	100
01.05	Agricultural and Domestic Animal Services			69	542	9.92	10.8	
01.05		39-2011	Animal Trainers	14	646	11.22	10	100
01.05		39-2021	Nonfarm Animal Caretakers	55	516	9.58	11	50
01.06	Applied Horticulture/Horticultural Business Services			3566	465	12.90	10.6	
01.06		27-1023	Floral Designers	37	545	11.66	10	100
01.06		37-1012	First-Line Supervisors/Managers of Landscaping, Lawn Service	229	508	19.17	8	100

Light Yellow=Programs Identified for 2010 CTE Program List
Lavender=Emerging Programs
Gold=Potential New Programs

DRAFT Detailed Occupational Data within All Available CIP Codes for 2010 CTE Program List with Percent Allocation								
CIP	CIP TITLE	SOC	OCCUPATIONAL TITLE	OPEN	ONET	WAGE	ED	PCT
01.06		37-3011	Landscaping and Groundskeeping Workers	638	365	10.46	11	100
01.06		37-3012	Pesticide Handlers, Sprayers, and Applicators, Vegetation	10	359	11.94	10	100
01.06		41-1011	First-Line Supervisors/Managers of Retail Sales Workers	222	571	19.78	8	17
01.06		41-2031	Retail Salespersons	2412	477	12.35	11	50
01.06		45-2093	Farmworkers, Farm and Ranch Animals	18	397	12.05	11	50
01.08	Agricultural Public Services			54	654	16.15	9	
01.08		27-4011	Audio and Video Equipment Technicians	54	654	16.15	9	50
01.09	Animal Sciences			3	563	20.27	8	
01.09		45-1011	First-Line Supervisors/Managers of Farming, Fishing	3	563	20.27	8	17
01.10	Food Science and Technology			9	595	21.11	6	
01.10		19-4031	Chemical Technicians	9	595	21.11	6	50
01.11	Plant Sciences			3	563	20.27	8	
01.11		45-1011	First-Line Supervisors/Managers of Farming, Fishing	3	563	20.27	8	17
01.99	Agriculture, Agriculture Operations, & Related Sciences, Ot			3	563	20.27	8	
01.99		45-1011	First-Line Supervisors/Managers of Farming, Fishing	3	563	20.27	8	17
03.01	Natural Resources Conservation and Research			31	667	19.03	6	
03.01		19-4091	Environmental Science and Protection Technicians, Including	17	682	21.14	6	33
03.01		19-4093	Forest and Conservation Technicians	14	647	16.33	6	25
03.02	Natural Resources Management and Policy			16	652	17.39	6	
03.02		19-4093	Forest and Conservation Technicians	14	647	16.33	6	25
03.02		33-3031	Fish and Game Wardens	2	682	23.49	6	33
03.03	Fishing and Fisheries Sciences and Management			5	615	21.68	7.1	
03.03		33-3031	Fish and Game Wardens	2	682	23.49	6	33
03.03		45-1011	First-Line Supervisors/Managers of Farming, Fishing	3	563	20.27	8	17
03.05	Forestry			18	608	16.35	6.9	
03.05		19-4093	Forest and Conservation Technicians	14	647	16.33	6	25
03.05		45-4021	Fallers	4	478	16.40	10	100
03.06	Wildlife and Wildlands Science and Management			2	682	23.49	6	
03.06		33-3031	Fish and Game Wardens	2	682	23.49	6	33
03.99	Natural Resources and Conservation, Other			14	647	16.33	6	
03.99		19-4093	Forest and Conservation Technicians	14	647	16.33	6	25
04.05	Interior Architecture			16	609	20.74	6	
04.05		27-1025	Interior Designers	16	609	20.74	6	25

DRAFT Detailed Occupational Data within All Available CIP Codes for 2010 CTE Program List with Percent Allocation								
CIP	CIP TITLE	SOC	OCCUPATIONAL TITLE	OPEN	ONET	WAGE	ED	PCT
04.09	Architectural Technology/Technician			26	594	20.72	7	
04.09		17-3011	Architectural and Civil Drafters	26	594	20.72	7	50
09.01	Communication and Media Studies			6	547	13.11	9	
09.01		27-3012	Public Address System and Other Announcers	6	547	13.11	9	100
09.04	Journalism			40	561	17.73	9	
09.04		27-3011	Radio and Television Announcers	20	563	18.86	9	50
09.04		27-4021	Photographers	20	560	16.60	9	25
09.07	Radio, Television, and Digital Communication			20	563	18.86	9	
09.07		27-3011	Radio and Television Announcers	20	563	18.86	9	50
09.09	Public Relations, Advertising, & Applied Communication			122	540	22.53	10	
09.09		41-3011	Advertising Sales Agents	122	540	22.53	10	100
10.01	Communications Technology/Technician			18	655	16.87	6.4	
10.01		27-4012	Broadcast Technicians	11	633	17.63	6	50
10.01		27-4014	Sound Engineering Technicians	7	688	15.73	7	50
10.02	Audiovisual Technologies			141	541	14.29	9.5	
10.02		27-4011	Audio and Video Equipment Technicians	54	654	16.15	9	50
10.02		27-4012	Broadcast Technicians	11	633	17.63	6	50
10.02		27-4014	Sound Engineering Technicians	7	688	15.73	7	50
10.02		27-4031	Camera Operators, Television, Video, and Motion Picture	6	619	22.93	10	50
10.02		51-9131	Photographic Process Workers	19	373	12.17	10	100
10.02		51-9132	Photographic Processing Machine Operators	45	422	10.81	11	100
10.03	Graphic Communications			130	425	12.10	10.2	
10.03		43-9031	Desktop Publishers	5	499	18.10	7	100
10.03		43-9081	Proofreaders and Copy Markers	60	458	9.24	11	100
10.03		51-5011	Bindery Workers	10	410	12.38	11	100
10.03		51-5021	Job Printers	7	380	15.89	9	100
10.03		51-5022	Prepress Technicians and Workers	5	355	13.66	7	33
10.03		51-5023	Printing Machine Operators	41	391	14.54	10	100
10.03		51-9194	Etchers and Engravers	2	386	13.98	9	100
11.02	Computer Programming			2	534	20.84	9	
11.02		51-4012	Numerical Tool and Process Control Programmers	2	534	20.84	9	50
11.03	Data Processing			190	551	19.90	7.4	
11.03		15-1041	Computer Support Specialists	122	575	22.64	6	20
11.03		43-9011	Computer Operators	66	508	14.79	10	100
11.03		51-4012	Numerical Tool and Process Control Programmers	2	534	20.84	9	50
11.06	Data Entry/Microcomputer Applications			45	492	14.13	10	

Light Yellow=Programs Identified for 2010 CTE Program List
Lavender=Emerging Programs
Gold=Potential New Programs

DRAFT Detailed Occupational Data within All Available CIP Codes for 2010 CTE Program List with Percent Allocation

CIP	CIP TITLE	SOC	OCCUPATIONAL TITLE	OPEN	ONET	WAGE	ED	PCT
11.06		43-9022	Word Processors and Typists	45	492	14.13	10	50
12.03	Funeral Service and Mortuary Science			28	595	22.18	7.9	
12.03		11-9061	Funeral Directors	16	661	28.00	6	100
12.03		39-4011	Embalmers	2	640	18.70	7	100
12.03		39-4021	Funeral Attendants	10	481	13.55	11	100
12.04	Cosmetology			532	501	11.96	7	
12.04		39-5011	Barbers	35	457	9.05	7	100
12.04		39-5012	Hairdressers, Hairstylists, and Cosmetologists	346	520	12.99	7	100
12.04		39-5092	Manicurists and Pedicurists	99	439	9.31	7	100
12.04		39-5094	Skin Care Specialists	52	521	12.15	7	100
12.05	Culinary Arts			11408	478	9.29	10.7	
12.05		11-9051	Food Service Managers	147	664	21.30	8	50
12.05		35-1011	Chefs and Head Cooks	62	539	19.02	8	100
12.05		35-1012	First-Line Supervisors/Managers of Food Preparation and Ser	192	538	14.98	8	50
12.05		35-2011	Cooks, Fast Food	737	515	8.30	11	100
12.05		35-2012	Cooks, Institution and Cafeteria	113	391	11.50	10	50
12.05		35-2014	Cooks, Restaurant	740	530	10.27	9	100
12.05		35-2015	Cooks, Short Order	149	518	10.40	11	100
12.05		35-2021	Food Preparation Workers	1151	517	10.68	11	100
12.05		35-3011	Bartenders	409	507	8.94	11	100
12.05		35-3021	Combined Food Preparation and Serving Workers	2153	458	8.44	11	100
12.05		35-3022	Counter Attendants, Cafeteria, Food Concession	920	436	8.51	11	100
12.05		35-3031	Waiters and Waitresses	3390	474	8.59	11	100
12.05		35-9031	Hosts and Hostesses, Restaurant, Lounge, and Coffee Shop	1100	416	8.19	11	100
12.05		51-3021	Butchers and Meat Cutters	97	502	15.93	9	100
12.05		51-3022	Meat, Poultry, and Fish Cutters and Trimmers	49	486	12.36	11	100
12.99	Personal and Culinary Services, Other			17	634	32.18	8	
12.99		11-9071	Gaming Managers	17	634	32.18	8	100
13.10	Special Education and Teaching			3	379	16.68	9	
13.10		27-3091	Interpreters and Translators	3	379	16.68	9	6
13.12	Education and Training: Education Professions/Early Childhood Education			221	529	15.33	7.6	
13.12		25-2011	Preschool Teachers, Except Special Education	90	530	10.84	7	50
13.12		25-3021	Self-Enrichment Education Teachers	131	529	18.39	8	100
13.13	Teacher Education & Professional Development, Specific Subj			73	634	14.83	8.4	

Light Yellow=Programs Identified for 2010 CTE Program List

Lavender=Emerging Programs

Gold=Potential New Programs

DRAFT Detailed Occupational Data within All Available CIP Codes for 2010 CTE Program List with Percent Allocation								
CIP	CIP TITLE	SOC	OCCUPATIONAL TITLE	OPEN	ONET	WAGE	ED	PCT
13.13		27-2022	Coaches and Scouts	50	663	15.25	9	50
13.13		39-9031	Fitness Trainers and Aerobics Instructors	23	570	13.92	7	50
13.15	Teaching Assistants/Aides			722	494	10.25	11	
13.15		25-9041	Teacher Assistants	722	494	10.25	11	100
14.18	Materials Engineering			25	607	25.53	8	
14.18		13-1051	Cost Estimators	25	607	25.53	8	14
14.19	Mechanical Engineering			25	607	25.53	8	
14.19		13-1051	Cost Estimators	25	607	25.53	8	14
14.33	Construction Engineering			25	607	25.53	8	
14.33		13-1051	Cost Estimators	25	607	25.53	8	14
14.36	Manufacturing Engineering			25	607	25.53	8	
14.36		13-1051	Cost Estimators	25	607	25.53	8	14
15.02	Engineering Sciences			19	590	21.51	6	
15.02		17-3022	Civil Engineering Technicians	19	590	21.51	6	50
15.03	Electronic Technologies			55	562	24.16	6	
15.03		17-3023	Electrical and Electronic Engineering Technicians	55	562	24.16	6	50
15.04	Electromechanical Instrumentation & Maintenance Technologies			63	627	16.15	7.7	
15.04		49-9062	Medical Equipment Repairers	42	712	17.03	6	100
15.04		51-2023	Electromechanical Equipment Assemblers	21	458	14.39	11	100
15.05	Engineering Sciences			118	666	18.39	8.8	
15.05		17-3025	Environmental Engineering Technicians	10	642	19.95	6	50
15.05		47-4041	Hazardous Materials Removal Workers	7	344	14.33	10	33
15.05		49-9021	Heating, Air Conditioning, and Refrigeration Mechanics	58	721	17.06	9	50
15.05		51-8031	Water and Liquid Waste Treatment Plant and System Operators	44	647	20.42	9	100
15.06	Engineering Sciences			12	649	20.31	6	
15.06		17-3026	Industrial Engineering Technicians	12	649	20.31	6	50
15.07	Engineering Sciences			115	572	15.56	9.7	
15.07		17-3025	Environmental Engineering Technicians	10	642	19.95	6	50
15.07		51-9061	Inspectors, Testers, Sorters, Samplers, and Weighers	105	566	15.16	10	100
15.08	Engineering Sciences			283	686	19.24	6.9	
15.08		17-3027	Mechanical Engineering Technicians	29	683	22.67	6	100
15.08		49-3023	Automotive Service Technicians and Mechanics	254	686	18.85	7	50
15.09	Mining and Petroleum Technologies/Technicians			1	522	17.46	6	
15.09		19-4041	Geological and Petroleum Technicians	1	522	17.46	6	100

Light Yellow=Programs Identified for 2010 CTE Program List
Lavender=Emerging Programs
Gold=Potential New Programs

DRAFT Detailed Occupational Data within All Available CIP Codes for 2010 CTE Program List with Percent Allocation								
CIP	CIP TITLE	SOC	OCCUPATIONAL TITLE	OPEN	ONET	WAGE	ED	PCT
15.10	Construction Engineering Technologies			44	599	23.78	7.1	
15.10		13-1051	Cost Estimators	25	607	25.53	8	14
15.10		17-3022	Civil Engineering Technicians	19	590	21.51	6	50
15.11	Engineering-Related Technologies			13	615	21.29	10	
15.11		17-3031	Surveying and Mapping Technicians	13	615	21.29	10	50
15.12	Information Technologies			177	571	23.11	6	
15.12		15-1041	Computer Support Specialists	122	575	22.64	6	20
15.12		17-3023	Electrical and Electronic Engineering Technicians	55	562	24.16	6	50
15.13	Drafting and Design Technologies			102	608	21.68	7	
15.13		17-3011	Architectural and Civil Drafters	26	594	20.72	7	50
15.13		17-3012	Electrical and Electronics Drafters	15	544	26.25	7	100
15.13		17-3013	Mechanical Drafters	61	630	20.95	7	100
15.15	Engineering-Related Fields			12	649	20.31	6	
15.15		17-3026	Industrial Engineering Technicians	12	649	20.31	6	50
15.99	Engineering Technologies/Technicians, Other			11	488	19.83	6	
15.99		17-3024	Electro-Mechanical Technicians	11	488	19.83	6	100
16.01	Linguistics Comparative, & Related Language Studies & Service			3	379	16.68	9	
16.01		27-3091	Interpreters and Translators	3	379	16.68	9	6
16.02	African Languages, Literatures, and Linguistics			3	379	16.68	9	
16.02		27-3091	Interpreters and Translators	3	379	16.68	9	6
16.03	East Asian Languages, Literatures, and Linguistics			3	379	16.68	9	
16.03		27-3091	Interpreters and Translators	3	379	16.68	9	6
16.04	Slavic, Baltic & Albanian Languages, Literatures, & Linguist			3	379	16.68	9	
16.04		27-3091	Interpreters and Translators	3	379	16.68	9	6
16.05	Germanic Languages, Literatures, and Linguistics			3	379	16.68	9	
16.05		27-3091	Interpreters and Translators	3	379	16.68	9	6
16.06	Modern Greek Language and Literature			3	379	16.68	9	
16.06		27-3091	Interpreters and Translators	3	379	16.68	9	6
16.07	South Asian Languages, Literatures, and Linguistics			3	379	16.68	9	
16.07		27-3091	Interpreters and Translators	3	379	16.68	9	6
16.08	Iranian/Persian Languages, Literatures, & Linguistics			3	379	16.68	9	
16.08		27-3091	Interpreters and Translators	3	379	16.68	9	6
16.09	Romance Languages, Literatures, and Linguistics			3	379	16.68	9	
16.09		27-3091	Interpreters and Translators	3	379	16.68	9	6
16.10	American Indian/Native American Languages, Literatures, & L			3	379	16.68	9	
16.10		27-3091	Interpreters and Translators	3	379	16.68	9	6
16.11	Middle/Near Eastern & Semitic Languages, Literatures, & Lin			3	379	16.68	9	
16.11		27-3091	Interpreters and Translators	3	379	16.68	9	6
16.12	Classics & Classical Languages, Literatures, & Linguistics			3	379	16.68	9	

Light Yellow=Programs Identified for 2010 CTE Program List
Lavender=Emerging Programs
Gold=Potential New Programs

DRAFT Detailed Occupational Data within All Available CIP Codes for 2010 CTE Program List with Percent Allocation								
CIP	CIP TITLE	SOC	OCCUPATIONAL TITLE	OPEN	ONET	WAGE	ED	PCT
16.12		27-3091	Interpreters and Translators	3	379	16.68	9	6
16.13	Celtic Languages, Literatures, and Linguistics			3	379	16.68	9	
16.13		27-3091	Interpreters and Translators	3	379	16.68	9	6
16.14	Southeast Asian & Australasian/Pacific Languages, Literature			3	379	16.68	9	
16.14		27-3091	Interpreters and Translators	3	379	16.68	9	6
16.15	Turkic, Ural-Altaic, Caucasian, & Central Asian Languages,			3	379	16.68	9	
16.15		27-3091	Interpreters and Translators	3	379	16.68	9	6
16.16	American Sign Language (ASL)			3	379	16.68	9	
16.16		27-3091	Interpreters and Translators	3	379	16.68	9	6
16.99	Foreign Languages, Literatures, and Linguistics, Other			3	379	16.68	9	
16.99		27-3091	Interpreters and Translators	3	379	16.68	9	6
19.02	Family & Consumer Sciences/Human Sciences Business Services			222	571	19.78	8	
19.02		41-1011	First-Line Supervisors/Managers of Retail Sales Workers	222	571	19.78	8	17
19.05	Foods, Nutrition, and Related Services			377	488	12.97	9.1	
19.05		29-2051	Dietetic Technicians	12	432	10.36	10	33
19.05		35-1012	First-Line Supervisors/Managers of Food Preparation	192	538	14.98	8	50
19.05		35-2012	Cooks, Institution and Cafeteria	113	391	11.50	10	50
19.05		51-3092	Food Batchmakers	61	525	9.88	11	50
19.06	Housing and Human Environments			33	508	19.47	7.5	
19.06		27-1025	Interior Designers	16	609	20.74	6	25
19.06		49-9031	Home Appliance Repairers	17	411	18.25	9	50
19.07	Human Development, Family Studies, and Related Services			793	552	9.00	10.5	
19.07		25-2011	Preschool Teachers, Except Special Education	90	530	10.84	7	50
19.07		39-9011	Child Care Workers	703	555	8.77	11	100
19.09	Apparel and Textiles			43	571	22.69	7.3	
19.09		13-1022	Wholesale and Retail Buyers, Except Farm Products	22	571	26.38	8	25
19.09		27-1022	Fashion Designers	1	559	19.60	6	50
19.09		27-1025	Interior Designers	16	609	20.74	6	25
19.09		51-6092	Fabric and Apparel Patternmakers	4	428	11.40	9	100
22.03	Legal Support Services			456	498	21.47	6.8	
22.03		23-2011	Paralegals and Legal Assistants	197	530	23.80	6	100
22.03		23-2091	Court Reporters	10	517	24.48	7	100
22.03		23-2093	Title Examiners, Abstractors, and Searchers	41	408	19.56	10	100
22.03		43-6012	Legal Secretaries	208	484	19.49	7	100
25.03	Library Assistant			172	542	12.80	7.9	

DRAFT Detailed Occupational Data within All Available CIP Codes for 2010 CTE Program List with Percent Allocation								
CIP	CIP TITLE	SOC	OCCUPATIONAL TITLE	OPEN	ONET	WAGE	ED	PCT
25.03		25-4031	Library Technicians	135	551	12.99	7	100
25.03		43-4121	Library Assistants, Clerical	37	509	12.11	11	100
30.16	Accounting and Computer Science			122	575	22.64	6	
30.16		15-1041	Computer Support Specialists	122	575	22.64	6	20
30.19	Nutrition Sciences			12	432	10.36	10	
30.19		29-2051	Dietetic Technicians	12	432	10.36	10	33
31.01	Parks, Recreation and Leisure Studies			51	633	11.85	11	
31.01		39-9032	Recreation Workers	51	633	11.85	11	25
31.03	Parks, Recreation and Leisure Facilities Management			51	633	11.85	11	
31.03		39-9032	Recreation Workers	51	633	11.85	11	25
31.05	Health and Physical Education/Fitness			124	634	13.60	9.5	
31.05		27-2022	Coaches and Scouts	50	663	15.25	9	50
31.05		39-9031	Fitness Trainers and Aerobics Instructors	23	570	13.92	7	50
31.05		39-9032	Recreation Workers	51	633	11.85	11	25
31.99	Parks, Recreation, Leisure and Fitness Studies, Other			51	633	11.85	11	
31.99		39-9032	Recreation Workers	51	633	11.85	11	25
41.01	Bioscience			18	595	15.11	6	
41.01		19-4021	Biological Technicians	18	595	15.11	6	100
41.03	Physical Science Technologies/Technicians			31	624	20.86	6.5	
41.03		19-4031	Chemical Technicians	9	595	21.11	6	50
41.03			Environmental Science and Protection Technicians	17	682	21.14	6	33
41.03		51-8091	Chemical Plant and System Operators	3	454	21.73	9	100
41.03			Chemical Equipment Operators and Tenders	2	498	16.03	10	100
41.99	Science Technologies/Technicians, Other			17	682	21.14	6	
41.99		19-4091	Environmental Science and Protection Technicians	17	682	21.14	6	33
43.01	Law, Public Safety and Security			1721	633	19.62	9.6	
43.01		19-4092	Forensic Science Technicians	31	618	24.31	6	100
43.01			First-Line Supervisors/Managers of Police and Detectives	103	763	36.56	8	100
43.01		33-3011	Bailiffs	17	480	15.58	10	100
43.01		33-3012	Correctional Officers and Jailers	359	678	17.47	10	100
43.01		33-3021	Detectives and Criminal Investigators	205	600	26.38	8	100
43.01		33-3051	Police and Sheriff's Patrol Officers	441	650	24.42	9	100
43.01		33-3052	Transit and Railroad Police	2	525	20.55	9	50
43.01		33-9021	Private Detectives and Investigators	28	570	22.22	8	100
43.01		33-9032	Security Guards	514	592	11.06	11	100
43.01		33-9091	Crossing Guards	21	392	8.34	11	50
43.02	Fire Science			291	752	18.94	9	

Light Yellow=Programs Identified for 2010 CTE Program List
Lavender=Emerging Programs
Gold=Potential New Programs

DRAFT Detailed Occupational Data within All Available CIP Codes for 2010 CTE Program List with Percent Allocation								
CIP	CIP TITLE	SOC	OCCUPATIONAL TITLE	OPEN	ONET	WAGE	ED	PCT
43.02		33-2011	Fire Fighters	285	753	18.72	9	100
43.02		33-2021	Fire Inspectors and Investigators	6	705	29.29	8	100
43.99	Security and Protective Services, Other			119	516	10.76	10.8	
43.99		33-3041	Parking Enforcement Workers	6	525	14.28	11	100
43.99		33-3052	Transit and Railroad Police	2	525	20.55	9	50
43.99		33-9011	Animal Control Workers	24	583	14.89	10	100
43.99		33-9091	Crossing Guards	21	392	8.34	11	50
43.99		33-9092	Lifeguards, Ski Patrol, and Other Recreational Protective Services	66	530	9.41	11	100
44.02	Community Organization and Advocacy			37	397	17.01	10	
44.02		13-1061	Emergency Management Specialists	1	658	28.75	8	50
44.02		43-4061	Eligibility Interviewers, Government Programs	36	394	16.85	10	100
44.04	Public Administration			22	599	31.62	8	
44.04		11-3071	Transportation, Storage, and Distribution Managers	16	602	32.32	8	25
44.04		11-9131	Postmasters and Mail Superintendents	6	587	30.07	8	100
44.04		13-1061	Emergency Management Specialists	1	658	28.75	8	50
45.01	Social Sciences, General			16	585	16.68	6	
45.01		19-4061	Social Science Research Assistants	16	585	16.68	6	100
45.07	Geography and Cartography			13	615	21.29	10	
45.07		17-3031	Surveying and Mapping Technicians	13	615	21.29	10	50
46.01	Mason/Masonry			377	554	17.59	9.1	
46.01		47-1011	First-Line Supervisors/Managers of Construction Trades	44	578	27.16	8	17
46.01		47-2021	Brickmasons and Blockmasons	180	550	17.91	9	100
46.01		47-2022	Stonemasons	47	615	15.46	9	100
46.01		47-2044	Tile and Marble Setters	71	604	15.09	9	100
46.01		47-3011	Helpers--Brickmasons, Blockmasons, Stonemasons	35	354	11.82	11	100
46.02	Carpenters			1295	508	16.58	9.2	
46.02		47-1011	First-Line Supervisors/Managers of Construction Trades	44	578	27.16	8	17
46.02		47-2031	Carpenters	1101	497	16.70	9	100
46.02		47-3012	Helpers--Carpenters	150	569	12.59	11	100
46.03	Electrical and Power Transmission Technologies			475	669	19.84	9.1	
46.03		47-1011	First-Line Supervisors/Managers of Construction Trades	44	578	27.16	8	17
46.03		47-2111	Electricians	332	695	19.15	9	100
46.03		47-3013	Helpers--Electricians	53	589	10.49	11	100
46.03		49-9051	Electrical Power-Line Installers and Repairers	45	668	28.86	9	100

Light Yellow=Programs Identified for 2010 CTE Program List
Lavender=Emerging Programs
Gold=Potential New Programs

DRAFT Detailed Occupational Data within All Available CIP Codes for 2010 CTE Program List with Percent Allocation

CIP	CIP TITLE	SOC	OCCUPATIONAL TITLE	OPEN	ONET	WAGE	ED	PCT
46.03		49-9097	Signal and Track Switch Repairers	1	466	20.55	10	100
46.04	Construction Technologies			1484	516	16.33	9.8	
46.04		47-1011	First-Line Supervisors/Managers of Construction Trades	44	578	27.16	8	17
46.04		47-2051	Cement Masons and Concrete Finishers	323	560	17.31	10	100
46.04		47-2053	Terrazzo Workers and Finishers	4	446	14.75	9	100
46.04		47-2081	Drywall and Ceiling Tile Installers	100	347	15.20	10	100
46.04		47-2121	Glaziers	80	463	16.06	9	100
46.04		47-2141	Painters, Construction and Maintenance	225	346	14.44	10	100
46.04		47-2181	Roofers	109	351	14.55	10	100
46.04		47-2221	Structural Iron and Steel Workers	53	491	16.21	9	50
46.04		47-4011	Construction and Building Inspectors	68	654	21.98	8	100
46.04		47-4091	Segmental Pavers	3	624	13.89	10	100
46.04		49-9042	Maintenance and Repair Workers	474	627	15.48	10	100
46.04		49-9095	Manufactured Building and Mobile Home Installers	1	440	12.74	10	100
46.05	Plumbing and Related Water Supply Services			387	556	18.64	9.3	
46.05		47-1011	First-Line Supervisors/Managers of Construction Trades	44	578	27.16	8	17
46.05		47-2151	Pipelayers	77	423	16.28	10	100
46.05		47-2152	Plumbers, Pipefitters, and Steamfitters	207	604	19.07	9	100
46.05		47-3015	Helpers--Pipelayers, Plumbers, Pipefitters, and Steamfitter	36	592	12.03	11	100
46.05		47-4071	Septic Tank Servicers and Sewer Pipe Cleaners	10	423	15.15	10	100
46.05		47-5021	Earth Drillers, Except Oil and Gas	10	494	16.99	10	50
46.05		47-5031	Explosives Workers, Ordnance Handling Experts, and Blasters	3	546	20.75	10	100
46.99	Construction Trades, Other			873	399	14.98	9.6	
46.99		47-1011	First-Line Supervisors/Managers of Construction Trades	44	578	27.16	8	17
46.99		47-2041	Carpet Installers	61	585	12.74	10	100
46.99		47-2042	Floor Layers, Except Carpet, Wood, and Hard Tiles	17	566	17.79	10	100
46.99		47-2043	Floor Sanders and Finishers	2	354	17.27	10	100
46.99		47-2061	Construction Laborers	458	354	13.87	10	100
46.99		47-2161	Plasterers and Stucco Masons	114	386	14.34	9	100
46.99		47-2171	Reinforcing Iron and Rebar Workers	74	362	17.43	9	100
46.99		47-2221	Structural Iron and Steel Workers	53	491	16.21	9	50
46.99		47-4031	Fence Erectors	43	356	12.44	10	100
46.99		47-4041	Hazardous Materials Removal Workers	7	344	14.33	10	33
47.01	Electrical Systems Installation and Maintenance Technologies			495	473	18.58	8.4	

Light Yellow=Programs Identified for 2010 CTE Program List

Lavender=Emerging Programs

Gold=Potential New Programs

DRAFT Detailed Occupational Data within All Available CIP Codes for 2010 CTE Program List with Percent Allocation

CIP	CIP TITLE	SOC	OCCUPATIONAL TITLE	OPEN	ONET	WAGE	ED	PCT
47.01		49-2011	Computer, Automated Teller, and Office Machine Repairers	38	512	18.03	7	100
47.01		49-2021	Radio Mechanics	0	459	21.95	7	100
47.01		49-2022	Telecommunications Equipment Installers and Repairers	102	417	23.41	9	100
47.01		49-2092	Electric Motor, Power Tool, and Related Repairers	19	403	14.29	7	100
47.01		49-2094	Electrical and Electronics Repairers, Commercial and Indust	66	598	22.34	7	100
47.01		49-2097	Electronic Home Entertainment Equipment Installers and Repa	21	562	15.64	7	100
47.01		49-9031	Home Appliance Repairers	17	411	18.25	9	50
47.01		49-9052	Telecommunications Line Installers and Repairers	30	450	15.42	9	100
47.01		49-9061	Camera and Photographic Equipment Repairers	2	607	14.58	10	100
47.01		49-9091	Coin, Vending, and Amusement Machine Servicers and Repairer	28	384	14.71	10	100
47.01		51-2021	Coil Winders, Tapers, and Finishers	6	413	11.47	11	100
47.01		51-2022	Electrical and Electronic Equipment Assemblers	92	512	17.01	11	100
47.01		51-9141	Semiconductor Processors	74	420	16.28	6	100
47.02	Heating, Ventilation and Air Conditioning			58	721	17.06	9	
47.02		49-9021	Heating, Air Conditioning, and Refrigeration Mechanics	58	721	17.06	9	50
47.03	Heavy/Industrial Equipment Maintenance Technologies			334	608	18.38	9.4	
47.03		47-4021	Elevator Installers and Repairers	4	473	29.59	9	100
47.03		49-3042	Mobile Heavy Equipment Mechanics, Except Engines	70	635	21.21	7	50
47.03		49-9041	Industrial Machinery Mechanics	108	578	22.26	9	100
47.03		49-9043	Maintenance Workers, Machinery	26	478	18.87	11	100
47.03		49-9044	Millwrights	10	614	19.92	9	100
47.03		49-9098	Helpers--Installation, Maintenance, and Repair Workers	112	659	12.38	11	100
47.03		51-2031	Engine and Other Machine Assemblers	1	533	17.16	11	50
47.03		51-6062	Textile Cutting Machine Setters, Operators, and Tenders	2	488	13.28	10	100
47.03		51-6063	Textile Knitting and Weaving Machine Setters, Operators	1	488	12.05	9	100
47.04	Precision Systems Maintenance and Repair Technologies			41	426	15.36	8.7	
47.04		49-9063	Musical Instrument Repairers and Tuners	16	386	16.15	9	100
47.04		49-9064	Watch Repairers	10	367	11.58	9	100

Light Yellow=Programs Identified for 2010 CTE Program List

Lavender=Emerging Programs

Gold=Potential New Programs

DRAFT Detailed Occupational Data within All Available CIP Codes for 2010 CTE Program List with Percent Allocation

CIP	CIP TITLE	SOC	OCCUPATIONAL TITLE	OPEN	ONET	WAGE	ED	PCT
47.04		49-9094	Locksmiths and Safe Repairers	6	638	16.81	10	100
47.04		51-9071	Jewelers and Precious Stone and Metal Workers	9	422	17.18	7	100
47.06	Transportation Technologies			702	607	18.23	7.7	
47.06		49-2091	Avionics Technicians	15	528	20.72	7	100
47.06		49-2093	Electrical and Electronics Installers and Repairers	6	495	16.68	7	100
47.06		49-2096	Electronic Equipment Installers and Repairers, Motor Vehicles	10	495	16.25	7	100
47.06		49-3011	Aircraft Mechanics and Service Technicians	18	518	24.06	7	50
47.06		49-3021	Automotive Body and Related Repairers	76	620	19.00	9	100
47.06		49-3022	Automotive Glass Installers and Repairers	12	599	16.45	9	100
47.06		49-3023	Automotive Service Technicians and Mechanics	254	686	18.85	7	50
47.06		49-3031	Bus and Truck Mechanics and Diesel Engine Specialists	170	592	18.03	7	100
47.06		49-3051	Motorboat Mechanics	10	405	17.26	9	100
47.06		49-3052	Motorcycle Mechanics	19	603	14.61	9	100
47.06		49-3053	Outdoor Power Equipment and Other Small Engine Mechanics	10	399	14.20	10	100
47.06		49-3091	Bicycle Repairers	16	614	10.22	10	100
47.06		49-3092	Recreational Vehicle Service Technicians	9	440	15.31	9	100
47.06		51-2011	Aircraft Structure, Surfaces, Rigging, and Systems Assemblers	52	481	18.96	9	100
47.06		51-2031	Engine and Other Machine Assemblers	1	533	17.16	11	50
47.06		51-9122	Painters, Transportation Equipment	25	535	16.85	9	100
47.99	Mechanic and Repair Technologies/Technicians, Other			7	344	14.33	10	
47.99		47-4041	Hazardous Materials Removal Workers	7	344	14.33	10	33
48.03	Leatherworking and Upholstery			27	403	10.25	9	
48.03		51-6041	Shoe and Leather Workers and Repairers	18	418	9.29	9	100
48.03		51-6093	Upholsterers	9	373	12.17	9	100
48.05	Precision Manufacturing/Welding Technologies			661	482	15.28	9.4	
48.05		47-2211	Sheet Metal Workers	94	578	16.51	9	100
48.05		51-2041	Structural Metal Fabricators and Fitters	43	424	13.44	10	100
48.05		51-4011	Computer-Controlled Machine Tool Operators, Metal and Plastics	22	451	16.01	10	100
48.05		51-4021	Extruding and Drawing Machine Setters, Operators, and Tenders	15	652	13.85	10	100
48.05		51-4022	Forging Machine Setters, Operators, and Tenders, Metal and Plastics	8	412	13.77	10	100

Light Yellow=Programs Identified for 2010 CTE Program List

Lavender=Emerging Programs

Gold=Potential New Programs

DRAFT Detailed Occupational Data within All Available CIP Codes for 2010 CTE Program List with Percent Allocation

CIP	CIP TITLE	SOC	OCCUPATIONAL TITLE	OPEN	ONET	WAGE	ED	PCT
48.05		51-4023	Rolling Machine Setters, Operators, and Tenders, Metal and Plastics	8	517	13.18	10	100
48.05		51-4031	Cutting, Punching, and Press Machine Setters, Operators	69	440	12.37	10	100
48.05		51-4032	Drilling and Boring Machine Tool Setters, Operators, and Tenders	9	467	14.18	10	100
48.05		51-4033	Grinding, Lapping, Polishing, and Buffing Machine Tool Setters	9	391	13.31	10	100
48.05		51-4034	Lathe and Turning Machine Tool Setters, Operators, and Tenders	12	387	16.54	10	100
48.05		51-4035	Milling and Planing Machine Setters, Operators, and Tenders	3	361	15.79	10	100
48.05		51-4041	Machinists	96	606	17.23	9	100
48.05		51-4061	Model Makers, Metal and Plastic	2	585	15.08	10	100
48.05		51-4062	Patternmakers, Metal and Plastic	2	466	15.32	10	100
48.05		51-4071	Foundry Mold and Coremakers	6	421	13.84	10	100
48.05		51-4081	Multiple Machine Tool Setters, Operators, and Tenders	17	484	12.09	10	100
48.05		51-4111	Tool and Die Makers	8	589	20.80	9	100
48.05		51-4121	Welders, Cutters, Solderers, and Brazers	209	417	15.48	9	100
48.05		51-4122	Welding, Soldering, and Brazing Machine Setters, Operators	19	418	15.87	10	100
48.05		51-4191	Heat Treating Equipment Setters, Operators, and Tenders	3	401	13.21	10	100
48.05		51-4192	Lay-Out Workers, Metal and Plastics	1	399	15.79	10	100
48.05		51-4194	Tool Grinders, Filers, and Sharpeners	6	500	14.68	10	100
48.07	Woodworking			180	391	12.69	9.5	
48.07		51-7011	Cabinetmakers and Bench Carpenters	80	368	13.75	9	100
48.07		51-7021	Furniture Finishers	15	372	14.43	9	100
48.07		51-7032	Patternmakers	1	361	19.80	9	100
48.07		51-7041	Sawing Machine Setters, Operators, and Tenders, Wood	28	394	11.69	10	100
48.07		51-7042	Woodworking Machine Setters, Operators, and Tenders	56	429	11.08	10	100
48.08	Boilermaking/Boilermaker			13	479	20.24	9	
48.08		47-2011	Boilermakers	13	479	20.24	9	100
48.99	Precision Production, Other			5	355	13.66	7	
48.99		51-5022	Prepress Technicians and Workers	5	355	13.66	7	33
49.01	Air Transportation			86	627	32.48	7.6	
49.01		11-3071	Transportation, Storage, and Distribution Managers	16	602	32.32	8	25
49.01		53-2012	Commercial Pilots	51	672	27.99	7	100

Light Yellow=Programs Identified for 2010 CTE Program List
Lavender=Emerging Programs
Gold=Potential New Programs

DRAFT Detailed Occupational Data within All Available CIP Codes for 2010 CTE Program List with Percent Allocation

CIP	CIP TITLE	SOC	OCCUPATIONAL TITLE	OPEN	ONET	WAGE	ED	PCT
49.01		53-2021	Air Traffic Controllers	19	524	44.67	9	100
49.02	Heavy Equipment Operations			3003	520	16.08	10.4	
49.02		47-2071	Paving, Surfacing, and Tamping Equipment Operators	48	598	18.83	10	100
49.02		47-2073	Operating Engineers and Other Construction Equipment Operators	393	382	19.63	10	100
49.02		47-4051	Highway Maintenance Workers	39	623	14.60	10	100
49.02		47-5021	Earth Drillers, Except Oil and Gas	10	494	16.99	10	50
49.02		47-5041	Continuous Mining Machine Operators	18	345	18.53	10	100
49.02		47-5042	Mine Cutting and Channeling Machine Operators	9	557	14.86	10	100
49.02		53-3021	Bus Drivers, Transit and Intercity	101	596	12.40	10	100
49.02		53-3022	Bus Drivers, School	235	550	11.16	11	100
49.02		53-3032	Truck Drivers, Heavy and Tractor-Trailer	1062	524	18.09	10	100
49.02		53-3033	Truck Drivers, Light or Delivery Services	658	537	14.29	11	100
49.02		53-3041	Taxi Drivers and Chauffeurs	105	522	10.10	11	100
49.02		53-4021	Railroad Brake, Signal, and Switch Operators	11	449	23.30	10	100
49.02		53-7011	Conveyor Operators and Tenders	11	409	12.71	11	100
49.02		53-7021	Crane and Tower Operators	11	463	23.65	9	100
49.02		53-7032	Excavating and Loading Machine and Dragline Operators	50	377	19.36	10	100
49.02		53-7051	Industrial Truck and Tractor Operators	242	638	13.64	11	100
49.99	Transportation and Materials Moving, Other			27	481	33.30	10	
49.99		53-4011	Locomotive Engineers	27	481	33.30	10	100
50.01	Performing Arts and Entertainment Industry			26	516	18.29	9	
50.01		27-1013	Fine Artists, Including Painters, Sculptors, and Illustrators	6	376	23.63	9	33
50.01		27-4021	Photographers	20	560	16.60	9	25
50.03	Dance			28	495	18.32	8	
50.03		27-2032	Choreographers	28	495	18.32	8	100
50.04	Design and Applied Arts			42	554	17.90	7.5	
50.04		27-1022	Fashion Designers	1	559	19.60	6	50
50.04		27-1025	Interior Designers	16	609	20.74	6	25
50.04		27-4021	Photographers	20	560	16.60	9	25
50.04		51-5022	Prepress Technicians and Workers	5	355	13.66	7	33
50.06	Film/Video and Photographic Arts			26	574	18.06	9.2	
50.06		27-4021	Photographers	20	560	16.60	9	25
50.06		27-4031	Camera Operators, Television, Video, and Motion Picture	6	619	22.93	10	50
50.07	Fine and Studio Art			6	376	23.63	9	

Light Yellow=Programs Identified for 2010 CTE Program List
Lavender=Emerging Programs
Gold=Potential New Programs

DRAFT Detailed Occupational Data within All Available CIP Codes for 2010 CTE Program List with Percent Allocation

CIP	CIP TITLE	SOC	OCCUPATIONAL TITLE	OPEN	ONET	WAGE	ED	PCT
50.07		27-1013	Fine Artists, Including Painters, Sculptors, and Illustrators	6	376	23.63	9	33
51.06	Dental Assisting			684	592	22.31	8.5	
51.06		29-2021	Dental Hygienists	251	585	33.53	6	100
51.06		31-9091	Dental Assistants	411	598	15.85	10	100
51.06		51-9081	Dental Laboratory Technicians	22	565	14.80	9	100
51.07	Health and Medical Administrative Services			2284	507	16.30	9	
51.07		13-1031	Claims Adjusters, Examiners, and Investigators	86	538	24.15	9	50
51.07		15-1041	Computer Support Specialists	122	575	22.64	6	20
51.07		29-2071	Medical Records and Health Information Technicians	235	516	14.11	6	100
51.07		31-9092	Medical Assistants	134	557	13.63	10	25
51.07		43-1011	First-Line Supervisors/Managers of Office	293	573	22.24	8	33
51.07		43-4171	Receptionists and Information Clerks	533	476	11.91	11	50
51.07		43-6011	Executive Secretaries and Administrative Assistants	618	475	17.16	10	50
51.07		43-6013	Medical Secretaries	263	499	14.37	7	100
51.08	Allied Health Services			1040	542	13.98	9	
51.08		29-2012	Medical and Clinical Laboratory Technicians	59	627	19.29	6	50
51.08		29-2041	Emergency Medical Technicians and Paramedics	23	736	13.20	7	50
51.08		29-2052	Pharmacy Technicians	483	492	13.83	10	100
51.08		29-2054	Respiratory Therapy Technicians	3	730	16.79	6	50
51.08		29-2055	Surgical Technologists	37	647	18.84	7	50
51.08		29-2056	Veterinary Technologists and Technicians	158	582	13.18	6	100
51.08		31-2011	Occupational Therapist Assistants	6	649	22.74	6	100
51.08		31-2012	Occupational Therapist Aides	3	473	14.48	11	100
51.08		31-2021	Physical Therapist Assistants	25	608	15.78	6	100
51.08		31-2022	Physical Therapist Aides	32	571	11.53	11	100
51.08		31-9092	Medical Assistants	134	557	13.63	10	25
51.08		31-9093	Medical Equipment Preparers	18	550	12.82	11	100
51.08		31-9095	Pharmacy Aides	9	525	10.55	11	100
51.08		31-9096	Veterinary Assistants and Laboratory Animal Caretakers	50	525	9.84	11	100
51.09	Diagnostic and Intervention Technologies			671	639	21.30	7	
51.09		29-1124	Radiation Therapists	46	675	32.14	6	100
51.09		29-1126	Respiratory Therapists	141	692	21.79	6	100
51.09		29-2031	Cardiovascular Technologists and Technicians	54	657	20.48	6	100

Light Yellow=Programs Identified for 2010 CTE Program List

Lavender=Emerging Programs

Gold=Potential New Programs

DRAFT Detailed Occupational Data within All Available CIP Codes for 2010 CTE Program List with Percent Allocation

CIP	CIP TITLE	SOC	OCCUPATIONAL TITLE	OPEN	ONET	WAGE	ED	PCT
51.09		29-2032	Diagnostic Medical Sonographers	35	639	32.15	6	100
51.09		29-2033	Nuclear Medicine Technologists	14	701	32.44	6	100
51.09		29-2034	Radiologic Technologists and Technicians	172	624	23.50	6	100
51.09		29-2041	Emergency Medical Technicians and Paramedics	23	736	13.20	7	50
51.09		29-2054	Respiratory Therapy Technicians	3	730	16.79	6	50
51.09		29-2055	Surgical Technologists	37	647	18.84	7	50
51.09		31-9092	Medical Assistants	134	557	13.63	10	25
51.09		53-3011	Ambulance Drivers and Attendants, Except Emergency Medical	12	617	11.20	10	100
51.10	Clinical/Medical Laboratory Science and Allied Professions			116	540	16.28	8	
51.10		29-2012	Medical and Clinical Laboratory Technicians	59	627	19.29	6	50
51.10		51-9083	Ophthalmic Laboratory Technicians	57	451	13.18	10	100
51.15	Mental and Social Health Services			294	584	14.68	10	
51.15		21-1093	Social and Human Service Assistants	197	581	14.85	10	100
51.15		29-2053	Psychiatric Technicians	86	591	14.68	10	100
51.15		31-1013	Psychiatric Aides	11	576	11.67	11	50
51.16	Nursing Services			2685	658	24.59	6.4	
51.16		29-1111	Registered Nurses	1741	645	29.17	6	100
51.16		29-2061	Licensed Practical and Licensed Vocational Nurses	540	734	19.79	7	100
51.16		31-1012	Nursing Aides, Orderlies, and Attendants	404	615	11.25	7	50
51.18	Ophthalmic & Optometric Support Services & Allied Profession			190	550	14.12	9.7	
51.18		29-2081	Opticians, Dispensing	56	534	15.30	9	100
51.18		31-9092	Medical Assistants	134	557	13.63	10	25
51.23	Rehabilitation and Therapeutic Professions			7	444	15.87	9	
51.23		51-9082	Medical Appliance Technicians	7	444	15.87	9	100
51.26	Health Aides/Attendants/Orderlies			1141	555	10.54	9.6	
51.26		31-1011	Home Health Aides	726	521	10.13	11	100
51.26		31-1012	Nursing Aides, Orderlies, and Attendants	404	615	11.25	7	50
51.26		31-1013	Psychiatric Aides	11	576	11.67	11	50
51.27	Medical Illustration and Informatics			6	376	23.63	9	
51.27		27-1013	Fine Artists, Including Painters, Sculptors, and Illustrators	6	376	23.63	9	33
51.31	Dietetics and Clinical Nutrition Services			12	432	10.36	10	
51.31		29-2051	Dietetic Technicians	12	432	10.36	10	33
51.35	Therapeutic Massage			67	482	15.49	7	
51.35		31-9011	Massage Therapists	67	482	15.49	7	100
52.01	Business/Commerce, General			75	635	34.10	8	
52.01		11-3051	Industrial Production Managers	35	670	41.00	8	50

Light Yellow=Programs Identified for 2010 CTE Program List
Lavender=Emerging Programs
Gold=Potential New Programs

DRAFT Detailed Occupational Data within All Available CIP Codes for 2010 CTE Program List with Percent Allocation								
CIP	CIP TITLE	SOC	OCCUPATIONAL TITLE	OPEN	ONET	WAGE	ED	PCT
52.01		11-3071	Transportation, Storage, and Distribution Managers	16	602	32.32	8	25
52.01		13-1051	Cost Estimators	25	607	25.53	8	14
52.02	Business Management and Administration Services			1027	631	24.08	8	
52.02		11-3051	Industrial Production Managers	35	670	41.00	8	50
52.02		11-3071	Transportation, Storage, and Distribution Managers	16	602	32.32	8	25
52.02		13-1051	Cost Estimators	25	607	25.53	8	14
52.02		41-1011	First-Line Supervisors/Managers of Retail Sales Workers	222	571	19.78	8	17
52.02		43-1011	First-Line Supervisors/Managers of Office	293	573	22.24	8	33
52.02		49-1011	First-Line Supervisors/Managers of Mechanics	249	736	27.82	8	100
52.02		51-1011	First-Line Supervisors/Managers of Production	189	651	23.10	8	100
52.03	Accounting and Related Services			1802	464	15.57	10	
52.03		13-2082	Tax Preparers	24	496	14.40	10	50
52.03		43-3021	Billing and Posting Clerks and Machine Operators	218	443	14.63	10	100
52.03		43-3031	Bookkeeping, Accounting, and Auditing Clerks	1253	468	15.76	10	100
52.03		43-3041	Gaming Cage Workers	22	492	11.38	11	100
52.03		43-3051	Payroll and Timekeeping Clerks	250	463	15.82	10	100
52.03		43-4011	Brokerage Clerks	26	492	16.88	10	100
52.03		43-9111	Statistical Assistants	9	350	15.22	10	100
52.04	Business Operations Support and Assistant Services			10732	464	13.81	10.5	
52.04		43-2011	Switchboard Operators, Including Answering Service	83	421	11.49	11	100
52.04		43-2021	Telephone Operators	3	349	15.23	11	100
52.04		43-3061	Procurement Clerks	29	506	17.26	11	100
52.04		43-4021	Correspondence Clerks	22	351	14.09	11	100
52.04		43-4031	Court, Municipal, and License Clerks	69	457	15.80	11	100
52.04		43-4051	Customer Service Representatives	4078	441	14.36	10	100
52.04		43-4071	File Clerks	175	475	10.45	11	100
52.04		43-4111	Interviewers, Except Eligibility and Loan	228	481	12.82	11	100
52.04		43-4151	Order Clerks	114	516	13.25	11	100
52.04		43-4161	Human Resources Assistants, Except Payroll and Timekeeping	200	533	17.48	11	100
52.04		43-4171	Receptionists and Information Clerks	533	476	11.91	11	50
52.04		43-5011	Cargo and Freight Agents	36	472	16.81	10	100
52.04		43-5051	Postal Service Clerks	32	387	21.30	11	100
52.04		43-5052	Postal Service Mail Carriers	184	347	21.08	11	100

Light Yellow=Programs Identified for 2010 CTE Program List
Lavender=Emerging Programs
Gold=Potential New Programs

DRAFT Detailed Occupational Data within All Available CIP Codes for 2010 CTE Program List with Percent Allocation

CIP	CIP TITLE	SOC	OCCUPATIONAL TITLE	OPEN	ONET	WAGE	ED	PCT
52.04		43-5053	Postal Service Mail Sorters, Processors, and Processing Machine Operators	33	427	19.90	11	100
52.04		43-5061	Production, Planning, and Expediting Clerks	220	522	18.70	11	100
52.04		43-5071	Shipping, Receiving, and Traffic Clerks	1018	551	10.47	11	100
52.04		43-5111	Weighers, Measurers, Checkers, and Samplers, Recordkeeping	29	453	15.24	11	100
52.04		43-6011	Executive Secretaries and Administrative Assistants	618	475	17.16	10	50
52.04		43-6014	Secretaries, Except Legal, Medical, and Executive	562	483	13.66	10	100
52.04		43-9022	Word Processors and Typists	45	492	14.13	10	50
52.04		43-9041	Insurance Claims and Policy Processing Clerks	33	413	14.82	10	100
52.04		43-9051	Mail Clerks and Mail Machine Operators, Except Postal Services	115	395	10.78	11	100
52.04		43-9061	Office Clerks, General	2269	456	12.72	11	100
52.04		53-6041	Traffic Technicians	5	635	27.60	11	100
52.08	Finance Services			1604	484	12.88	11	
52.08		43-3011	Bill and Account Collectors	549	512	14.47	11	100
52.08		43-3071	Tellers	538	471	11.96	11	100
52.08		43-4041	Credit Authorizers, Checkers, and Clerks	334	485	9.99	11	100
52.08		43-4131	Loan Interviewers and Clerks	157	427	16.25	11	100
52.08		43-4141	New Accounts Clerks	26	487	14.89	8	100
52.09	Hospitality Management			261	591	18.36	8.7	
52.09		11-9051	Food Service Managers	147	664	21.30	8	50
52.09		11-9081	Lodging Managers	23	585	21.23	8	33
52.09		39-6021	Tour Guides and Escorts	61	446	12.39	10	100
52.09		39-9041	Residential Advisors	30	533	13.95	10	100
52.15	Real Estate			379	577	26.80	7	
52.15		13-2021	Appraisers and Assessors of Real Estate	164	580	21.74	7	100
52.15		41-9022	Real Estate Sales Agents	215	575	30.65	7	100
52.16	Taxation			24	496	14.40	10	
52.16		13-2082	Tax Preparers	24	496	14.40	10	50
52.17	Insurance			666	521	21.73	9.8	
52.17		13-1022	Wholesale and Retail Buyers, Except Farm Products	22	571	26.38	8	25
52.17		13-1023	Purchasing Agents, Except Wholesale, Retail, and Farm Producer	91	533	24.20	8	50
52.17		13-1031	Claims Adjusters, Examiners, and Investigators	86	538	24.15	9	50
52.17		13-1032	Insurance Appraisers, Auto Damage	6	576	24.71	9	100

Light Yellow=Programs Identified for 2010 CTE Program List
Lavender=Emerging Programs
Gold=Potential New Programs

DRAFT Detailed Occupational Data within All Available CIP Codes for 2010 CTE Program List with Percent Allocation

CIP	CIP TITLE	SOC	OCCUPATIONAL TITLE	OPEN	ONET	WAGE	ED	PCT
52.17		41-4012	Sales Representatives, Wholesale and Manufacturing	295	574	26.16	10	25
52.17		41-9041	Telemarketers	167	403	10.62	11	50
52.18	Marketing, Management and Entrepreneurship			9773	486	12.13	10.8	
52.18		11-9081	Lodging Managers	23	585	21.23	8	33
52.18		13-1022	Wholesale and Retail Buyers, Except Farm Products	22	571	26.38	8	25
52.18		13-1023	Purchasing Agents, Except Wholesale, Retail, and Farm Produce	91	533	24.20	8	50
52.18		39-6022	Travel Guides	21	565	15.86	10	100
52.18		39-6032	Transportation Attendants, Except Flight Attendants and Bag	8	422	9.42	11	100
52.18		41-1011	First-Line Supervisors/Managers of Retail Sales Workers	222	571	19.78	8	17
52.18		41-1012	First-Line Supervisors/Managers of Non-Retail Sales Workers	70	461	29.44	8	33
52.18		41-2011	Cashiers	4004	514	9.76	11	100
52.18		41-2012	Gaming Change Persons and Booth Cashiers	61	487	9.28	11	100
52.18		41-2021	Counter and Rental Clerks	553	420	10.94	11	100
52.18		41-2022	Parts Salespersons	32	575	15.38	10	50
52.18		41-2031	Retail Salespersons	2412	477	12.35	11	50
52.18		41-3041	Travel Agents	16	514	14.46	7	50
52.18		41-4011	Sales Representatives, Wholesale and Manufacturing	201	414	29.60	10	50
52.18		41-4012	Sales Representatives, Wholesale and Manufacturing	295	574	26.16	10	25
52.18		41-9011	Demonstrators and Product Promoters	114	502	15.46	10	100
52.18		41-9041	Telemarketers	167	403	10.62	11	50
52.18		41-9091	Door-To-Door Sales Workers, News and Street Vendors	15	393	13.12	11	100
52.18		43-4081	Hotel, Motel, and Resort Desk Clerks	218	520	9.19	11	100
52.18		43-4181	Reservation and Transportation Ticket Agents and Travel Clerks	77	438	12.40	11	50
52.18		43-5081	Stock Clerks and Order Fillers	998	398	10.17	11	100
52.18		53-3031	Driver/Sales Workers	155	539	11.46	11	100
52.19	Design and Merchandising			755	548	22.36	9.1	
52.19		11-9081	Lodging Managers	23	585	21.23	8	33
52.19		13-1022	Wholesale and Retail Buyers, Except Farm Products	22	571	26.38	8	25
52.19		41-1011	First-Line Supervisors/Managers of Retail Sales Workers	222	571	19.78	8	17

Light Yellow=Programs Identified for 2010 CTE Program List

Lavender=Emerging Programs

Gold=Potential New Programs

DRAFT Detailed Occupational Data within All Available CIP Codes for 2010 CTE Program List with Percent Allocation

CIP	CIP TITLE	SOC	OCCUPATIONAL TITLE	OPEN	ONET	WAGE	ED	PCT
52.19		41-1012	First-Line Supervisors/Managers of Non-Retail Sales Workers	70	461	29.44	8	33
52.19		41-2022	Parts Salespersons	32	575	15.38	10	50
52.19		41-3041	Travel Agents	16	514	14.46	7	50
52.19		41-4012	Sales Representatives, Wholesale and Manufacturing	295	574	26.16	10	25
52.19		43-4181	Reservation and Transportation Ticket Agents and Travel Clerks	77	438	12.40	11	50
52.99	Business, Management, Marketing, & Related Support Services			788	522	25.53	9.3	
52.99		41-1011	First-Line Supervisors/Managers of Retail Sales Workers	222	571	19.78	8	17
52.99		41-1012	First-Line Supervisors/Managers of Non-Retail Sales Workers	70	461	29.44	8	33
52.99		41-4011	Sales Representatives, Wholesale and Manufacturing	201	414	29.60	10	50
52.99		41-4012	Sales Representatives, Wholesale and Manufacturing	295	574	26.16	10	25

Sources	
1	Openings and wage data are produced by the Arizona Department of Commerce, Research Administration, in cooperation with the U.S. Department of Labor, Bureau of Labor Statistics. Wages are from the 2007 OES survey, released May 2008 and openings are from the 2006-2016 Occupational Projections.
2	O*NET database version 9.0: http://www.onetcenter.org/database.html
3	O*NET score is summation of allo*NET descriptors.
4	Education Levels: ftp://ftp.bls.gov/pub/special.requests/ep/optddata/optd.zip
5	Crosswalk between SOC and CIP: http://www.edcountability.net/quality/crosswalks.cfm
Calculation method	
1	Hourly wages were calculated by dividing annual wages by 2080.
2	All scores were first calculated by occupation using the SOC (Standard Occupational Code).
3	The field of occupations was restricted to those whose educational code was between 6 and 11 . The lowest educational code have the highest numbers (see below).
4	Scores by CIP (Classification of Instructional Programs) were calculated by taking an openings-weighted average of the occupations in the CIP. Within each CIP, there may be several 8-digit O*NET variations of the same 6-digit SOC occupation. In those cases, each SOC was counted only once. If a SOC occurred in more than one CIP, the openings for that SOC were evenly divided among the CIP code numbers.
5	Percentiles were calculated for each of the data items: openings, wages, and O*NET scores. In case of a tie, the same percentile was assigned to all CIP numbers involved in the tie.
6	The following formula determined the score for each CIP: $(4 \times \text{Openings Percentile} + 2 \times \text{Wage Percentile} + 3 \times \text{O*NET Percentile})/9$
BLS Education Codes	
1-4	The higher educational levels were not used for this project.
5	Bachelor Degree -- not used for this project.
6	Associate Degree
7	Post-secondary vocational training
8	Work experience in related occupation
9	Long-term on-the-job training
10	Moderate-term on-the-job training
11	Short-term on-the-job training
	for more details on the Education Codes, see: http://www.bls.gov/emp/optd/optd001.pdf
Questions and Comments	
	Direct questions or comments to Rick Van Sickle, rickv@azcommerce.com , John Graeflin, johng@azcommerce.com , or Cheri Levenson, cheril@azcommerce.com , at Research Administration, AZ Dept of Commerce

		Explanations of Each Column
C o l u m n		Explanation
A	Rank	This is the rank of the CIP (Classification of Instructional Programs) by score (column 4). Tie scores get tie ranks. Sometimes scores appear to be tie, but, if carried out to more decimal places, are not. Such CIPs are not assigned tie ranks.
B	CIP Code	This is the CIP (Classification of Instructional Programs) code of the training program. For more information see: http://nces.ed.gov/pubs2002/cip2000
C	CIP Title	The title of the training program. http://nces.ed.gov/pubs2002/cip2000
D	Score	The score is a weighted average of columns E through G. The weights used are: [(4 times OPEN) + (2 times WAGE) + (3 times O*NET)]/(sum of the weights or 9)]
E -G	Percentiles	These 3 columns convert the data in columns H through J to percentiles. Tie scores produce tie percentiles.
H	Openings	The number of openings expected per year for the occupations within this CIP. If an occupation is contained in more than one CIP, its openings are distributed evenly among those CIPs.
I	Hourly Wage	The average of the wages of the occupations contained in this CIP, weighted by the number of openings in each occupation.
J	O*NET Score	A measure of the skills and knowledge required for the occupations within this CIP, weighted by the number of openings in each occupation.
K	Educational Level	The various educational levels are described on lines 15-22 of the notes section. Higher numbers indicate lower amounts of education.



**CALL FOR PRESENTATIONS
MID-WINTER LEADERSHIP CONFERENCE
JANUARY 22-23, 2009
Thursday-Friday
Prescott Resort and Conference Center
Prescott, Arizona**

The Arizona Council of Occupational and Vocational Administrators and the Association for Career and Technical Education of Arizona invite you to participate in our 8th Annual Mid-Winter Leadership Conference at the Prescott Resort in Prescott, Arizona. Please fill out the following information.

Presenter

Position/Title

Address

Phone

Fax

email

Additional Presenters

Program Title, as you want it to appear in the program

Indicate your preference for time and day of your presentation; sessions are 1 hour in length.

Thursday afternoon

Friday morning

General Description of your presentation, you may attach a separate written description.

Biographical Information of the Presenter, you may attach a separate page

Please note that equipment may be provided by special request. Presenters will need to provide their own equipment for power point presentations. We request that all presenters bring enough hand-out and materials for 50 participants.

Please return by November 21, 2008 to:

Polly Abraham
pabraham@cusd.k12.az.us
Coolidge High School
800 W. Northern Avenue
Coolidge, Arizona 85228
520-723-2324 Telephone
520-723-2326 FAX

POSSIBLE SESSION TOPICS

- CTE as a Major Player in High School Reform and High School Modernization
- The Integration of CTSO's into Classroom Instruction—*The Co-Curricular Experience*
- Best Practices in the CTE Classroom
- ACTE_{AZ} Fellowship Leadership Program Experience
- Hands on Session for CTE Local Directors
- Teaching Leadership in the Classroom
- Helping CTE Local Directors and CTE Leaders to Facilitate Change
- The “Next Tasks” for Local Directors
- 2009 Arizona Legislative Session and National Legislative Session
- Integration with Academics in School Wide Reform
- Transition and Implementation of CTE Exploration in a Rural Setting
- Leadership in Marketing CTE
- Internship Opportunities for Students

This is only a partial list, if you have any questions, please call:

Polly Abraham 520-723-2324
pabraham@cusd.k12.az.us

Or

Pam Ferguson 623-826-6407
pamferguson@acteaz.org

Final Selection of Sessions to be presented
at the Mid-Winter Leadership Conference
Will be by the
ACTE_{AZ} and ACOVA Mid-Winter Leadership Team Committee

of software development within other information technology classes will be explored. A system of blended distance learning could allow delivery of two curricula at the same time in the same classroom. Strong support will be needed for a solid website with software (Moodle) and a good online electronic textbook.

James Madden - james.madden@tusd1.org

AP Economics and Financial Services at Pueblo Magnet High School, Tucson USD

An attempt was made to combine AP Economics and CTE Financial Services coursework through a team teaching approach. It was determined that AP Economics students should be required to take two years of Financial Services before attempting the AP Economics Exam. Teachers determined that it will be a huge undertaking to meet all the CTE standards concurrently with all the AP standards.

Maria Bicknell – maria.bicknell@tusd1.org

Steve Reff – reffonomics@yahoo.com

AP Macroeconomics and Marketing at Gilbert High School, Gilbert USD

AP Economics will be taught concurrently within the curriculum of the Advanced Marketing classes at Gilbert High School in the spring of 2009. It is undetermined whether students will take the AP Economics exam. There is a concern that delivery of AP Economics through the Marketing Program will impact the depth of instruction to prepare students in the Marketing content. The instructor has expressed concerns about the amount of the time it takes to prepare students for DECA competitions and AP exams. The instructor attended an AP Summer Institute at the U of A and completed an economics course at ASU. He joined the Arizona Council on Economics Education book club workshops. He plans to take the AEPA test for Economics.

Steve Mulhearn – azmoe99@yahoo.com

AP Annual Conference Presentation July 19, 2008, Seattle, WA

Maria Bicknell – Pueblo Magnet High School - maria.bicknell@tusd1.org

Renee Ciezki – Ironwood High School - rlciezki@peoriaud.k12.az.us

James Madden – Tucson University High School – james.madden@tusd1.org

These instructors presented a session titled Expanding the Pipeline – How Arizona is Aligning CTE Programs with AP Courses to approximately 60 attendees. Positive comments included a suggestion that consideration be given to a connection between AP Psychology and a FACS classes.

Arizona Department of Education



Tom Horne
Superintendent of Public Instruction

Choose Change

Arizona Middle and High School Renewal Conference

October 20-22, 2008

Crescent Hotel

2620 West Dunlap, Phoenix, AZ

1-800-325-3535



(Hotel reservations must be made by September 26, 2008 to secure conference rate: of \$103.00+/night)

Featuring



Willard Daggett and

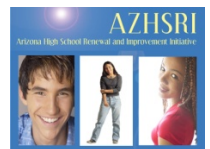
Senior Consultants from the International Center for Leadership in Education

Individuals and school teams are encouraged to participate in this opportunity to inform and expand upon collaborative leadership and instructional strategies for systemic school improvement through:

- **Rigor, Relevance and Relationships**
- **Improving Adolescent Literacy**
- **Inclusionary Special Education Strategies**
- **Leadership Lessons Learned in School Renewal**
- **Model Schools Sessions (AZ STYLE)**
- **Facilitated Planning Team and Individual Time with ICLE consultants**



Individual Registration: \$395.00
Team Registration (5 or more): \$365.00



To Register or for additional information please visit our websites:

[Individual Registration](#)

[Team Registration \(5 or more\)](#)

or call Shannon Tucker

(602) 542-4391

2010 CTE Program List

- Purpose of List
- Sources of Data
- Variables Used in Formula
- Formula Application
- Next Steps





Why Have a CTE Program List?

- AZ legislation “ programs reflect relative demand for employees in labor market sectors”
- Perkins “high skill, high wage or high demand”
- Identify CTE programs available for federal and state funding

Why Have a CTE Program List?

- Support career pathways and programs of study
- Emphasize postsecondary opportunities
- Source of LMI for all stakeholders





Acronyms

- **LMI** - Labor Market Information
- **CIP** - Classification of Instructional Programs
- **BLS** - Bureau of Labor Statistics
- **SOC** - Standard Occupational Classification
- **O*NET**- Occupational Information Network



Source of Information/Data

- Education Level Codes from BLS
- Revised CIP/SOC Crosswalk
- O*NET-Version 9
- 2007 Wages OES Survey AZ Commerce
- Projected Annual Openings 2016
AZ Commerce

Variables Used in Formula

- Job Openings
- O*NET Score
- Wages





Formula for CTE Program List

Variables Approved by State Board of
Education October 23, 2006

2 x percentile Ave SOC annual openings

1 x percentile Ave SOC wages

1.5 x percentile Ave O*NET score

= RANK on CTE Program List



Why is CIP 46.0300 # 5 on 2010 CTE Program List?

5 SOC Associated with CIP 46.0300

- 47-1011 First line Supervisors
- 47-2111 Electricians
- 47-3013 Electrician Helpers
- 49-9051 Electrical Power-Line Installers
- 49-9097 Signal & Track Switch Repairers



Job Openings

Annual Openings

- 44 First line Supervisors
- 332 Electricians
- 53 Electrician Helpers
- 45 Electrical Power Line Installers
- 1 Signal & Track Switch Repairers

Total Annual Projected Openings 475



O*NET Score

O*NET Knowledge, Skills and Abilities

- 578 First line Supervisors
- 695 Electricians
- 589 Electrician Helpers
- 668 Electrical Power Line Installers
- 466 Signal &Track Switch Repairers

Average 669

Wages



Average Wages

- \$27.16 First line Supervisors
- \$19.15 Electricians
- \$10.49 Electrician Helpers
- \$28.86 Electrical Power Line Installers
- \$20.55 Signal & Track Switch Repairers

Average \$19.84



Data for 3 Variables

- 1. Sorted in Descending Order**
- 2. Assigned Rank**
- 3. Converted to Percentile**

Electrical & Power Transmission Tech
Percentiles:

- 81 percentile annual openings
- 68 percentile wages
- 97 percentile O*NET score



Apply the Formula to Electrical & Power Transmission

$$4 \times \text{percentile } 81 = 324$$

$$2 \times \text{percentile } 68 = 136$$

$$3 \times \text{percentile } 97 = 291$$

$$\text{Total} = 751 / 9$$

$$\text{Formula Score} = 83$$



41 CTE Programs in FY 2010

- Emerging Programs
- Potential New Programs
- New / Changing Options
- New CIP / Names for Programs



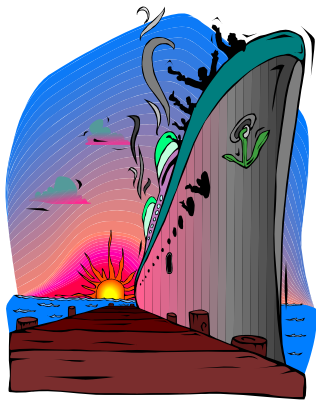
Maintain Existing New & Emerging Programs Minimum for Two More Years

- Bioscience with three options next year
- Engineering Sciences



Next Steps?

- Adopt, adapt or develop Standards for new programs and/or options
- Utilize labor market information with all stakeholder groups



Career Exploration: Cruising the States' Career Clusters

AMERICAN CAREERS is an award-winning, classroom-tested, educational resource designed with Career and Technical Education Teachers and School Counselors in mind.

New Strategies and Lesson Plans -- November 2008

You will want the latest 2008-09 edition of the American Careers student magazine customized for Arizona!

CTE Teachers and School Counselors

In this hands-on working session, participants will benefit from sharing practical experiences, collaborating on effective teaching strategies, and exploring opportunities that enable teachers and counselors to work as a team to help students make connections between school and work. Participants will leave this session with an **action plan** for implementing the American Careers Program upon their return to school.

All participants will receive 50 new student publications and the new Teaching Guide on CD!

The 2008-09 Student Magazine contains interviews with actual workers, salary and education data for careers, career preparation options, ways to develop employability and life skills, and websites for further research. There is also a customized insert of Arizona's Education Career Action Plan (ECAP) applicable for all Arizona students.

The 2008-09 Teaching Guide offers lesson plans that integrate career information with content from the academic disciplines. All hands-on learning projects promote problem solving, goal setting, decision making, and planning. Learning activities relate to careers in each of the 16 nationally recognized Career Clusters and are easily adaptable to all school settings.

Registration Fee: \$25

includes Teaching Guide, 50 copies of the American Careers student magazine, and refreshments

See the attached registration form for dates, times, and locations.

These training opportunities are being offered to you by the Career and Technical Education Unit at the Arizona Department of Education in partnership with the Career Communications, Inc. and the Workforce Education and Development Office at Arizona State University.

Registration Form

Career Exploration: Cruising the States' Career Clusters

☒ Indicate the one session you will attend.

<u>Date</u>	<u>Location</u>	<u>Date</u>	<u>Location</u>
<input type="checkbox"/> Monday, Nov 17 1:30pm to 4:30pm	Lake Havasu District Office 2200 Havasupai Blvd Lake Havasu City 86403	<input type="checkbox"/> Tuesday, Nov 18 1:30pm to 4:30pm	AZ Department of Education 2005 N Central Avenue Phoenix 85004
<input type="checkbox"/> Wednesday, Nov 19 8:30am to 11:30am	Pendergast Learning Ctr 3841 N 91 st Avenue Phoenix 85037	<input type="checkbox"/> Thursday, Nov 20 8:30am to 11:30am	Hon-Dah Conference Center 777 Hwy 260 Pinetop 85935
	<input type="checkbox"/> Friday, Nov 21 1:30pm to 4:30pm	<input type="checkbox"/> Pima CC Community Campus 401 N Bonita Avenue Tucson 85709	

Registration Fee: \$25
includes Teaching Guide, 50 copies of the American Careers student magazine, and refreshments

Complete this form and mail it with your registration fee or **FAX it with your purchase order to:**

Dana Grismer
Arizona State University, Workforce Education and Development Office
411 N Central Avenue, Suite 300, Phoenix AZ 85004-2191
Phone: (602) 496-1451 FAX (602) 496-1452
Email: dana.grismer@asu.edu

To register online, use the link below and follow the directions:

www.ade.az.gov/online/registration/calendar/RenderCalendar.asp

Make checks and purchase orders payable to: ASU/Workforce Education and Development Office

Teaching/Admin Assignment/Other _____

District _____

School _____

School Address (street) _____

School Address (city/zip) _____

School Phone _____ FAX _____

E-mail _____

Registration form accompanied by check or purchase order must be received by 5:00 p.m. on Monday, November 10, to be fully registered for the workshop.

Notification of cancellation must be received in writing (FAX/e-mail OK) no later than November 10.
Substitutions accepted. **Registrants who fail to attend without cancellation will be billed.**

Upon receipt of the registration form ASU/WEDO will email final confirmation and driving directions to the email address indicated on this form.



The professional association building community, advocacy, and leadership for Arizona CTE Administrators

Annual ACOVA Fall Conference
Nov 5-6, 2008
Prescott Resort
Prescott, Arizona

Registration fee of \$225 – includes lunch and dinner on the 5th and breakfast and lunch on the 6th.

Mail or E-mail registration with payment or purchase order to:

ACOVA

Post Office Box 183

Bisbee, Arizona 85603

520-364-2447 X 7612 or 7613 FAX 520-805-4100

rdactor@dusd.k12.az.us

Hotel Reservation: \$95 per night. 800-967-4637

Please specify you are with ACOVA when registering.

"Written request for refunds must be made a minimum of 15 days prior to conference; exceptions will be reviewed by the ACOVA officers on a case by case basis."

Proposed Agenda

Nov 5

8:30-11:30 Local Director's Mtg
12:00-12:30 Registration and Lunch
12:30- 1:30 Welcome and Keynote
1:35- 3:05 Breakout Sessions
3:15 – 4:55 Breakout Sessions
5:15 – 5:55 Mentor/Mentee Networking
6:00 Dinner

Nov 6

7:30 - 8:00 Buffet Breakfast
8:00 – 9:30 ACOVA Business Mtg - Visioning
9:40 – 11:20 Breakout Session
11:30 Lunch and Closing including Raffle, 50/50

Name:

Address:

City:

State:

Zipcode

Phone:

Fax:

Email :

Please list any special accommodations required: